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THE PRESIDENT'S ADDRESS.

Delivered September 22, 1886.

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OF CINCINNATI.

FELLOWS OF THE AMERICAN GYNECOLOGICAL SOCIETY:

The "lex non scripta" of this Society not only demands an annual address from its President, but the same authority, as precedented in former addresses, makes it customary for these inaugural words to be to some extent retrospective and advisory.

At this, the beginning of the second decade of this Society, I can but congratulate its Fellows upon the valuable and enduring monument they have erected to Gynecology in its ten volumes of *Transactions*. Further congratulation is warranted from the fact that an examination of current literature in obstetrics and gynecology, together with new books and ably rewritten editions of old ones, will show that much of the best work in the science and practice of these departments has been wrought by Fellows of this Society.

Valuable additions to the departments of science represented in this Society are contributed from all quarters in such rapid succession, as to require unremitting diligence of all who would keep pace with the tide of progress.

The epoch, therefore, is propitious, and since our yearly growth of members is secured largely by the election of comparatively young men of unusual capacity and promise, to fellowship, the belief is warranted that the work of the next ten years, as it shall be recorded in our *Transactions*, will be superior to that of the past.

I have spoken of our growth and flattering prospects, and it is but proper now to speak of our great loss.

We must for a moment turn aside in sorrow.

DR. ALBERT HOLMES SMITH

is dead, the sad event occurring at his residence in Philadelphia, December 14, 1885, since our last meeting. He was a man of high physical and intellectual endowments, and an obstetrician of the very highest skill; a writer of great clearness and force, always practical and instructive. Professionally he had an international reputation. He was an ex-president of this Society. He fell in the prime of his manhood, just as he was steadily and certainly approaching the zenith of a most successful career. He died triumphantly in the full confidence of Christian faith. A Fellow who knew Dr. Smith intimately, Dr. Parvin, whose pen can touch with eloquence and poetry even a subject so sad as death, has agreed to furnish for our *Transactions* an obituary sketch.

I now beg your indulgence while calling your atten-

tion to several current topics, some of which seem to me of special importance at the present time. No profound scientific discussion of any will be attempted, for such an effort, in a brief address like this, would be out of place; but such plain and humble criticism or commendation as may give expression to my convictions will be offered.

It may be said that the time during which our Society has been in existence is the abdominal epoch of the surgical age in Gynecology. It has seen abdominal section so developed and perfected that the brilliant achievements of skilful operators have far exceeded the most sanguine expectations of ten years ago. This is not only true of all fields of abdominal section, but especially so of ovariotomy, the pioneer operation in this realm.

It would seem that nothing further is to be desired in

OVARIOTOMY,

when we hear the astonishing report of 139 successive operations without a death. Such success as this challenges our admiration, and stimulates our emulation. It brightens the lustre of the star that stands over Danville, where ovariotomy was cradled. It makes Birmingham the Mecca for ambitious gynecological pilgrims from all the surgical world.

Phenomenal success, however, is not confined to Birmingham, Edinburgh, or London. Skilful hands are busy everywhere, and remarkable results are reported from all quarters. The statistics of American operators are constantly improving, in some instances reaching a high standard, although they have not yet reached the high mark attained abroad. The exact reasons for this discrepancy await demonstration. It is probable that the explanation will be found largely in climatic influences and constitutional conditions.

Again, it is unquestionably true that, in our own country, the operation is essayed by a relatively larger number of operators than abroad. In England and Scotland especially, it is done chiefly by a few of exceptional skill, and so far as practicable this practice should be the rule everywhere. These facts must have important bearing upon the statistics of an operation which, perhaps above all others, demands in those who perform it that coolness of judgment and especial intelligence which can only come from a large practical experience.

We have already seen that surgical results are eminently satisfactory so far as relates to cystic disease of the ovary which imperils life. But is the operation of removing the ovaries for supposed beginning "cystic degeneration," "cirrhosis," "catarrhal salpingitis," "chronic catarrh of the tubes," "stenosis," "congestion," "enlargement," always justifiable? I know not. Have not the glowing reports of such cases, and the cures wrought, together with the facility of the operation and its comparative immunity from danger to life, led to the extirpation of many a sinless ovary? How often

in our experience have we met cases with the constant pelvic pain and its various reflexes, with a tender ovary slightly displaced, or some tortuous body about the uterine fundus, which we thought was the "congested," "hypertrophied," or dilated tubes; in short, having a clinical history, and physical aspect, incapable of differentiation from those cases from which we hear of ovaries being removed, and yet we have seen them cured by a patient recourse to diet, massage, electricity, vaginal irrigations, medication of the vaginal vault and cervix, rest of body and mind, postural treatment, etc.

Such occurrences are so very frequent in our everyday practice as to be painfully suggestive of too much freedom with the ovary, considering our want of familiarity with its minor pathological changes. The truth of this remark is in no way invalidated because of recent attempts in high quarters to settle this whole question on clinical testimony exclusively.

Dr. Coe has recently written an exhaustive paper on the slight pathological provocations which have been deemed sufficient cause to warrant the extirpation of ovaries. His conclusions, supported as they are by abundant, able, and intelligent investigation, are not of a nature restful to the consciences of any who may have been over-zealous in performing spaying, without due discrimination. It has been our wont to congratulate ourselves upon the great benefits which have accrued to humanity by the perfection and practice of ovariotomy, and justly so. Numerous and ingenious statisticians have delighted us with computations of the sum total added to human life by this single operation. To these gratifying statistics of alleviated suffering and respite death we have ever pointed with pride. We have so often adduced these figures to demonstrate the wondrous progress of our art, and offered them in expiation for what we considered the blunders of our drugging, dosing, and bleeding forefathers. I greatly fear, however, that somebody will one of these days show the other side of the picture, that some ingenious statistical cynic will compute the years of human life lost to the race by this destruction of ovaries of which the functional activity is yet unabated, and the structure of which yet bears many possibilities for population.

There has been entirely too much constructive pathology written upon the ovary. Much of the pathology has, I fear, been created in order to justify the removal of functionally active ovaries after they have been extirpated. We need the "fiat lux" of a practical pathology, sustained by the most extensive comparative investigations upon healthy and unhealthy ovaries. A humane and economic conservatism should keep our fingers off these organs until we know whether they are yet capable of discharging their function, or whether they are physiologically dead, or whether their possessor can be cured without their sacrifice.

The recent praiseworthy practice of Schröder in leaving the healthy portion of the ovary when possible, in the extirpation of ovarian cysts, is a movement in the right direction, and in every case of removal of the ovary or tubes for minor disease, if the operation must be done, but one ovary should be extirpated unless positive disease of both be detected on exposure.

If pathological processes destroy the ovaries or occlude the tubes, the patient is unsexed by disease, and then we may consider the propriety of removing these

appendages only when we are convinced that such is unquestionably the case, and that their removal will probably cure the suffering. Again, many of the remarkable cures reported after this operation must be taken "cum grano salis" until such time has passed as will preclude the possibility of a relapse, or at least render it improbable. Time will, I fear, much change the aspect of some reported cures; this opinion is not wholly speculative.

Let us as a society and as individuals do our duty toward women by proclaiming and practising against this unsexing enthusiasm. Can we not take some steps toward the establishment of some hard and fast lines for the government of this practice?

In all the foregoing let not one word be so interpreted as to detract one iota from the boon conferred upon suffering women by the performance of spaying in properly selected cases. Abdominal surgery has conferred no greater blessing, nor shone with brighter lustre, than in the rescue by these operations of certain subjects curable by no other means, from death or a life worse than death.

The triumphs of ovariotomy have led to a broad field of possibility in abdominal surgery, both for the gynecologist and the general surgeon. It has demonstrated the fallacy of the old ideas of peritoneal intolerance. Peritoneal tolerance is now so well established that we are hardly astonished at the maxim "when in doubt open the abdomen." The success of ovariotomy and the development of its technique, have opened the way for many brilliant achievements at the hands of general surgeons. Notable among these are gastrotomy, nephrectomy, enterotomy, hepatotomy, and section for intestinal wounds.

One of the recent innovations of abdominal section, is its employment in

SUPPURATIVE PERITONITIS,

and the reports from this practice in England are highly satisfactory. It is fortunate that a procedure so rational as opening the abdominal cavity and free washing of its interior, as a treatment for suppuration, has met with such success in its very inception. It is, in my opinion, destined soon to become the established practice. The programme promises a paper on this subject from the pen of an able Fellow.

ALEXANDER'S OPERATION

may be said to be just entering upon its trial, since it has been performed in all countries combined less than 150 times. Anatomically and mechanically considered, it unquestionably rests upon sound principles, and it seems probable that it will have a future. It must be confessed, however, that since its mortality is variously stated at from one to six per cent., its utility should be tested with great caution and conservatism. Especially so, as when it is successful it can only relieve retroversion and prolapsus, conditions generally remediable by other means absolutely safe.

Moreover, even in the hands of experts, the operation has in quite a number of instances signally failed. It may be further stated, I think justly, that the subsequent clinical history of many of the subjects who have been apparently relieved by the operation will show relapses, for it is very doubtful whether in many instances the

uterine deviation was primarily due to abnormal length of the round ligaments. It is more likely that the lengthening of the ligaments is generally a result of uterine displacement, and will recur as a result of the cause which originally produced the malposition.

SIGNS OF PREGNANCY.

Since the formation of this Society nothing of importance has been added to our ability to diagnosticate early pregnancy. Hegar's sign, a slight relative change in the form of the uterus, has been offered, but it is no more decisive than many others of a similar character. Moreover, this sign is not new. Our manifest inability to detect early pregnancy is the opprobrium of obstetrics. Is it not probable that nature hangs out somewhere an unequivocal sign of this most important event in the animal economy, early in its career, and that we may cherish the hope that the near future will read its disclosure to the profession? As the programme pledges a contribution to this subject by an able Fellow, we shall await its revelations with interest.

During the period under consideration the attention of gynecologists has been so riveted upon surgery, and especially abdominal surgery, that they have neglected the subject of diagnosis. This important feature as a preliminary to rational treatment has made almost no progress since the beginning of the present surgical era.

ABDOMINAL SECTION AS A MEANS OF DIAGNOSIS

in doubtful cases is most valuable, but its character as a piece of surgery in itself, its danger and the time required for its employment, and the necessity for special skill, all preclude a very general utility. Again, the recourse to this practice for differentiation has made us less reliant upon the old-established methods. We should develop and perfect our methods of diagnosis by clearer directions and conceptions concerning the information to be gained by inspection, palpation, percussion, auscultation, and by a keener appreciation and analysis of subjective symptoms, and a more judicial interpretation of each history. There is a large field of promise here offering a rich harvest for patient and intelligent investigation. We seem to have lost sight of the importance of diagnosis as expressed by the adage, "qui sufficit ad cognoscendum sufficit ad curandum." High diagnostic skill is the first essential in successful practice, and the foundation stone without which rational therapeutics is impossible.

Partly as a result of deficient ability in detecting disease, and partly from the extraordinary attractions afforded by surgery in the treatment of the diseases of women, we have suffered a dearth in

THERAPEUTICS.

The scarcity of literature and investigation upon this subject is greatly to be deprecated. We should expect from this source a powerful adjuvant, in combating the surgical tendency of the times. The discovery of some remedy with a special action on the ovary might in many instances prove an ovarian saviour. In all the *Transactions* of this Society you have contributed but five papers on medicinal therapeutics. This neglect of medicine is not confined to this Society; it is one of the derelictions of all countries in this field.

Dr. Meadows, in his address in obstetrics before the

last meeting of the British Medical Association, speaking of our sins of omission toward medicines, said; "It may be an Utopian idea on my part, but I confess I do not see why we should not possess a group of remedies whose action on the ovary or the uterus should be as well known and understood, and as certain in their results as are the actions of diuretics on the kidneys, purgatives on the bowels, and cholagogues on the liver." However Utopian such an idea may be, it is at least suggestive of our want in this direction, and promise to labor in the field.

ELECTRICITY

as a therapeutic agent in gynecology, has been swaying in and out of general favor. It has run the gauntlet of extravagant enthusiasm on the part of its over-zealous advocates on the one hand, and the condemnation of faint praise from those lukewarm in its advocacy on the other. Its utility as one of the most extraordinary agents in our power is at last well established, and from many quarters we are receiving clearer directions for its employment, and more rational explanations of its *modus operandi*. It has, however, not yet received the general and intelligent trial at the hands of the profession which it deserves. This agent has fought its way to the front through a most obstinate scepticism, bred largely of ignorance of the indications for its use, and methods of employment. In this country no one has done more to popularize electricity in gynecology than a distinguished Fellow of this Society in the pages of his own journal.

As an index of the favor and appreciation which this subject is receiving, I take pleasure in referring to our present programme, which promises three contributions upon the therapeutic value of electricity. I am sure, when we bear in mind the accomplishments and character of these contributors, we are justified in expecting classical additions of high merit to our knowledge in this direction.

Its use in extrauterine pregnancy is at last getting the attention it merits. Its value in this field has been especially pointed out in the *Transactions* of this Society. Dr. Aveling, the first to employ this treatment successfully in England, has just read an interesting paper, with cases, before the British Medical Association. Even the limited trial it has received, has demonstrated beyond doubt that it is the safest and most effective treatment yet proposed in this perplexing "lapsus naturæ." It is worthy of note that this treatment was first employed, and its value demonstrated in this country, by Dr. J. G. Allen, of Philadelphia.

The treatment for extensive fibroid disease of the uterus occupies no small chapter in the gynecological annals of the past few years. Medicinal treatment for these growths has been tried faithfully and abundantly, and in the main unsatisfactorily; though, in some instances, good results have followed the use of ergot and electricity. The latter agent has been employed with commendable enthusiasm and patience, especially by Apostoli, with results very encouraging. It probably has a more general value than any other therapeutic treatment yet applied to this condition, and its employment is becoming more and more popular. I have myself had some admirable results with the agent in arresting growth in these cases.

HYSTERECTOMY FOR UTERINE FIBROIDS

has been swaying to and fro in professional favor. Recently it has received a most wonderful impetus in the remarkable results obtained by Keith and others, particularly in Scotland and England. From a previous general mortality, varying from fifty to seventy-five per cent., Keith reports a series of cases with a mortality of only eight per cent. Schröder, whose statistics are probably the most favorable offered by any large operator in Continental Europe, has had a mortality of about twenty-nine per cent.

The question was asked by Keith, the most brilliant operator in this field: "Does a mortality of eight per cent. justify an operation for a disease that, as a rule, has only a limited active life, and that only for a time, though of itself it rarely kills?" It certainly suggested a negative answer to his mind, and in view of the much greater fatality generally following the operation, should inspire a similar reply from all.

Spaying in the treatment of extreme cases of uterine fibroids has met with more general favor and success than any other surgical procedure. It is attended with far less danger and is usually much more easily performed. The objection that it unsexes the patient is here not pertinent, since a fibroid of the uterus sufficient to justify the operation is in itself an unsurmountable barrier to fertility. It is in this operation for inducing an artificial menopause that we find our safest refuge in these tormenting cases, although there are a few where life is manifestly imperilled and the very large size of the tumor with complications renders the removal of the uterine appendages impossible, that recourse to the grave operation of hysterectomy may be justifiable. It is also probably true that in all fibrotic tumors of the uterus, as well as in all suppurating ones, hysterectomy offers the only hope. Of course, nothing here applies to intrauterine tumors or such submucous ones as may be safely removed *per vaginam*.

The past decade has been especially fruitful in measures for preventing, and methods for overcoming those cases of more

SEVERE DYSTOCIA,

the difficulties and perplexities of which have hitherto required the grave operation of craniotomy. Improved hygiene, wiser sanitation, and such legislation as the Factory Act in England, are acting in happy combination to prevent those frightful pelvic deformities which have been such barriers to maternity and have compelled obstetric ingenuity to devise the various implements for infant destruction. Relief is also coming through the development and perfection of the Porro and Porro-Müller operations and laparo-elytrotomy each in its proper sphere. In the lesser degrees of pelvic deformity, premature labor, turning, improved forceps and their more skilful use.

The emancipation of the Cæsarean section from the ban under which it had been placed by Baudon in France, and Spaeth in Germany, has been conducive to the same end. This result has been largely due to the indefatigable labors of Dr. Harris, who, by persistently calling the attention of the profession to the possibilities of Cæsarean section as shown by a careful examination of all the literature on this subject, has demonstrated

its past successes and future promises as an obstetric procedure.

Our chief reliance as an alternative to craniotomy, at least in cases of pelvic deformity where the conjugata vera is below two and one-half inches, is to be placed in the Sänger-Leopold operation, and what more convincing assurance need we offer than the fact that during the year ending with June, 1886, there were twenty Sänger operations in Europe with a loss of only two women?

Notwithstanding these remarkable results, the same confession must be made regarding this operation in this country, as regarding ovariotomy, although in this case the discrepancy against us is infinitely greater. For out of a total of thirty-eight Sänger operations reported up to date, with twenty-six successful, five were done in the United States, all of which were fatal. There can be little doubt that a strong element in this unfortunate showing for us is the failure to realize the importance of early interference. It is insisted upon by Dr. Harris, that, other things being equal, the danger to the mother is much increased when the operation is done after the death of the child.

Circumstances have environed this operation in this country that have existed nowhere else, at least to the same degree. With us the operation is almost never done until long waiting and protracted efforts at delivery by other methods, together with death of the child, have brought the patient to death's door. Indeed in many cases she is not only exhausted but septic. When the operation is done here as abroad, deliberately, early in the labor, as a primary and only measure, our results will be satisfactory. And this practice will soon be the rule.

It seems to me probable that the practice of deliberate destruction of the infant is being gradually encompassed about by a constantly narrowing circle of limitations, and it requires neither a seer's vision nor the spirit of prophecy to see in the near future this circle reduced to a vanishing point, to see a full fruition to the hope that craniotomy shall be abolished and the instruments devised for its perpetration relegated as curiosities to museum shelves.

THE TOTAL EXTRIPATION OF THE UTERUS FOR CANCER

has enjoyed a remarkable renaissance since the organization of this Society. It was already constantly gaining favor in Germany, in view of the good results obtained notably by Schröder, Martin, Sänger, and Fehling. But the recent extraordinary report by Leopold of thirty-eight operations with but two deaths must assure its acceptance as an approved measure. It is somewhat noteworthy that by all odds the largest number of successful operators in this field are Germans. It is true, also, that the most rational method of performing the operation is the one devised by Dr. S. C. Lane, of California.

The merits and demerits of the operation have been discussed in this country with signal ability by two members of this Society. The operation is not extensively practised in this country, but there is now a growing disposition to give it a fair trial. It may seem presumptuous to offer objections to an operation which stands approved by such strong clinical evidence, more especially when the disease for the cure of which the

operation is done is one that is necessarily fatal. Nevertheless I must confess that so far as I have been able to examine the clinical proof offered, it is not convincing. The patients have survived the operation, and have been in some instances improved, but have they been cured? As to total aggregate results, has life been prolonged? I must reaffirm, what I have already expressed in the *Transactions* of this Society, my own belief that it is not yet proven that the operation is justifiable except in rare instances where the disease is confined to the body of the uterus, the cervix and vagina remaining comparatively free.

The operation is also undoubtedly justifiable in all cases of spindle-celled sarcoma of the body. In such cases there is little or no danger of involvement of adjacent connective tissue lymphatics. Nor is it usual under such circumstances for metastasis to other organs to occur. Removal of the uterus, therefore, if timely accomplished, offers prospect of cure.

Current opinion with clinicians of largest experience, recognizes the probable truth that

EPITHELIOMA OF THE UTERINE CERVIX

is primarily a local disease, and that ordinarily the cells do not invade the surrounding tissues for a long time after its manifestation. The view that in a large proportion of these cases the development of this disease is related to the traumata of parturition, is not so universally held. A most distinguished Fellow of this Society has very recently expressed his dissent from this view, as follows: "I have yet to witness any evidence that chronic inflammation, congestion, or laceration of the uterus, predisposes to malignant disease of any kind." (Byford, Pepper's *System of Medicine*, vol. iv. p. 275.) *Per contra*, an equally distinguished Fellow in the British Medical Association, held at Brighton in August, uttered the following language: "Referring to the effect of fissure of the cervix he was convinced that one point had been brought clearly and certainly home to his mind, namely, that epithelioma of the cervix was commonly secondary to, and the direct result of, a previous fissuring of the neck of the womb." (Emmet, *New York Medical Record*, Sept. 11, 1886.)

After a careful clinical study of this subject, in a large number of cases, I unequivocally commit myself to the belief that the cervical traumata of parturition strongly predispose to the development of epithelioma. It has been shown by Veit that the so-called cicatricial plug left after laceration is simply indurated connective tissue. It is also well established that epithelioma commences, as already stated, in the mucous membrane. In six cases, within the past three years, I have removed the neoplasm while it was yet confined to the mucous membrane immediately covering the indurated connective tissue resulting from laceration. Why this should be so is, of course, not known, but that it is due to impaired nutrition of the overlying epithelium is certainly probable.

It is significant, in this connection, that such a large proportion of the subjects of this disease are women who have borne children, or had abortions. In an experience of thirty years, embracing many hundreds of cases, I have seen but three instances of cervical epithelioma in the virgin.

Emmet's operation for restoration of the cervix to

normal conditions in cases where a manifest fissure exists, is, in my opinion, warranted upon the sole ground of prophylaxis against malignant disease, if upon no other. Clinical experience on all hands warrants the early and thorough removal of the cervix when malignant disease is developed, and has not extended too far for its complete eradication. The number of cases thus cured is now so large as to justify the brightest hopes for the future; radical cure in a considerable proportion of cases is no longer a question for discussion. My own clinical experience in this field is in perfect agreement with others. The method of operating, so it be thorough, is by no means so important as time.

THE CURETTE.

I shall now conclude these remarks with some observations on the uterine curette; and lest this seem to you a trite and trivial subject for occupying your time, let me preface with the statement that during the past few years in my own practice, alarming symptoms have followed its use in several instances, and in one case the result was fatal.

To speak of these experiences in this public way is the more imperatively my duty, because in a brief paper upon the use of this instrument, read by me before the Ohio State Medical Society, in 1878, the following language occurs: "Indeed, as to safety, I do not remember, nor have I the notes of, a single case where any serious consequence followed the employment, or were in any way whatever traceable to its use."

With a very much larger experience, I am bound now to say that dangers which cannot be foreseen, sometimes attend its employment. Nevertheless, I employ it almost daily, and fully concur in the general belief that it is the most efficient means we possess for controlling intractable pathological uterine hemorrhage. Of course, no one thinks of its employment, or, indeed, of any kind of intrauterine medication, in any case where periuterine inflammation exists, but it is frequently employed immediately upon the removal of tents where dilatation seemed necessary.

Against such practice I wish to enter an emphatic protest. Within the past year I removed with the blunt wire curette, small portions of retained and organized placental tissue from a patient who had given birth to a child ten months previously, and who had suffered from menorrhagia for the past four months. The character of the substance removed was verified by microscopic examination. The curetting was done immediately upon the removal of three small tupelo tents which had been inserted twelve hours previously. This patient died on the sixth day, of septicæmia.

Within the past few years I have rarely employed any form of curetting immediately upon the removal of tents without suspicious rise of temperature or pulse, or both, and in eight cases peritonitis has been well marked; in three of them the attack was severe and dangerous, although recovery occurred in each. Within the same period, although I have used the curette in hundreds of cases, peritonitis has not been developed in a single case where dilatation had not immediately preceded it.

It is, perhaps, also worthy of note, that in many of these cases where I have used the curette without unpleasant symptoms following, it was done at the same sitting with trachelorrhaphy, perineorrhaphy, or both.

I will further state that I believe the danger in these cases to be just as great after the tupelo tent as after the laminaria. Indeed, I must say I regard the high claims of superiority for the tupelo tent over the laminaria, as expressed on all hands, to be unfounded. As a matter of fact, the surface of the tupelo tent, on removal, is rougher than the laminaria, therefore inflicting greater injury to the tissues.

It is perhaps useless to state that I have not for several months, and shall not hereafter, immediately follow the removal of tents by the curette.

Rapid dilatation, which has recently been so popularized by the writings of a distinguished Fellow (Goodell), is alleged to be comparatively free from the dangers attendant upon the dilatation with tents. This view commends itself as rational. Certainly there could not be the same danger, *ceteris paribus*, in immediately following this method of dilatation by the curette. Time and further clinical experience, however, must determine more fully this question. In my own practice I am now employing this method of dilatation in all suitable cases. In one case peritonitis followed this method, the patient recovering.

I close by reference to the following somewhat peculiar case:

In July, 1881, I was consulted by a woman residing in Greene County, Ohio. She was thirty-four years of age, the mother of two children, the youngest four years old. An abortion had occurred one year subsequent to the birth of this child. The woman was below medium stature, a blonde, of decidedly nervous temperament, with the scrofulous type of fibre although there was no evidence of this taint. She was anæmic and feeble; she reported rather profuse menorrhagia for the past year, and during the intermenstrual period rather copious leucorrhœa, the discharge at times somewhat cheesy, at others tinged with blood. An examination showed an old laceration of the perineum, extending to the sphincter ani but not dividing it. No laceration of cervix. The vaginal walls were very flabby and relaxed. The injury to the pelvic floor was so great, and had existed so long, as to be followed by uterine descent and retroversion. The uterus was enlarged, measuring three and one-fourth inches, freely movable and not tender. No pelvic tenderness could be detected. She was placed upon iron, liberal diet, cold sponging of surface every morning, with friction. Under this treatment her anæmic condition was improved and the menorrhagia decreased.

The following September, in the presence of Dr. Wm. H. Wenning, now Secretary of the Cincinnati Obstetric Society, and my assistants, the patient being etherized, I proposed to curette the uterus, and at the same sitting to restore the perineum. The instrument employed was the blunt copper-wire curette very similar to but not the exact pattern of Thomas's, the patient being in the lithotomy position. No dilatation was necessary as the os was quite patulous, the curette entering the cavity with ease. The instrument was swept over the posterior and lateral uterine walls and a large amount of fungous tissue removed, showing under the microscope enlarged and distended glands, with the bloodvessels increased both in number and size, and embedded in a gelatinous mass. It was now carried over the anterior wall from the fundus with like results. During the manipulation no vio-

lence whatever being practised, as indeed none could be with an instrument so flexible, the curette suddenly passed in to a depth which brought the handle to the vulvar opening, to which I called the attention of Dr. Wenning, stating at the same time that I believed it had penetrated the anterior uterine wall, which opinion was at once verified.

Withdrawing the curette, Simpson's sound was carried in, the concave looking upward, and passed at once to its full length, nearly twelve inches, without resistance. Through the very thin and flaccid abdominal wall the point of the sound could be so very distinctly felt on a level with the umbilicus as to give the impression that nothing but the skin intervened between the sound and the fingers. I now moved the point of the sound right and left through a distance of three or four inches. The position of the distal end of the sound could be easily seen as it lifted up the abdominal wall. It is needless to say that further curetting was not done, and the perineorrhaphy was postponed. Before the patient had recovered from the ether an ice-bag was placed upon the abdomen, and when she had rallied forty drops of tincture of opium were given by enema.

She was not informed then, or subsequently, of what had occurred. On the morning of the following day the temperature was 99.5°, the pulse 80; no tympanites or abdominal pain. The temperature and pulse remained about the same until 2 P. M., when both gradually returned to the normal, where they remained throughout. The ice-bag was kept on continuously for five days. No pain and no symptoms at any time, and the patient left her bed in ten days. At the expiration of six weeks, in the presence of Dr. Wenning, the perineum was repaired and a perfect result obtained.

This woman is still living, with no return of menorrhagia, although she is still in rather feeble health. The extremely fragile condition of the uterine wall in this case, in view of the woman's subsequent history of fair though not robust health, is to my mind more mysterious than the fact that peritonitis was not lighted up by the rude manner in which the peritoneal cavity was invaded.

At the conclusion of his address, Dr. Reamy endorsed in strong terms the proposition which had been made to the Society to join with the Surgical and other special societies in a Congress.

ORIGINAL ARTICLES.

THE "PIG-BACKED" OR ALCOHOLIC KIDNEY OF DRUNKARDS.

A CONTRIBUTION TO THE POST-MORTEM DIAGNOSIS OF
ALCOHOLISM.¹

BY H. F. FORMAD, M.D.,

LECTURER ON EXPERIMENTAL PATHOLOGY AND DEMONSTRATOR OF
MORBID ANATOMY IN THE UNIVERSITY OF PENNSYLVANIA, ETC.

I wish to invite attention to a certain peculiarity of the kidneys of drunkards. It concerns the gross anatomy and appearance of these organs, and chiefly their shape. A certain constant naked-eye appear-

¹ Read at the meeting of the Association of American Physicians, Washington, June 28, 1886.

ance of the kidneys of hard drinkers on the autopsy table appears to me diagnostic of alcoholism. It is due to a chronic, venous, or passive congestion, leading to a cyanosis and sometimes to oedema of the kidneys, giving to these organs a peculiar swollen, rounded shape, which I am in the habit of designating as the "pig-backed" kidney. It differs essentially from the renal cyanosis of cardiac disease. It differs also from Bright's disease, and I believe it to represent an independent kidney affection.

While I have been pointing out this "pig-backed" kidney for some time in my laboratory demonstrations, and lately have repeatedly shown specimens of it in connection with other lesions of alcoholism before the Philadelphia Pathological Society, I have not as yet published a detailed account of this peculiar and fatal kidney affection. I am not aware that any of the authorities on renal diseases have studied or described this kidney lesion of drunkards, which I believe to be a quite interesting and significant one.

A word of comment upon the character of the material that has been under observation is necessary. I do not intend here to consider the general morbid anatomy of the kidneys of the universal "moderate" drinkers, since these individuals eventually die of any kind of ailments and with any kind of kidneys, often dying from exposure, carelessness, and irregularities in diet and life incident to the state of drunkenness, and perhaps not at all from the direct effects of alcohol.

The class of cases which I shall chiefly consider in this communication is one to which the coroner is more often called than the practising physician. I have selected only those cases where the person died more or less suddenly, where the history and general appearance clearly showed that death was due directly to alcoholism, and where all other factors in causing death had been carefully excluded as far as possible. I have particularly excluded such cases in which the persons had primary heart disease and other affections known to produce renal cyanosis. Most of the subjects had been in good general physical health, but having been inveterate drunkards and nearly always intoxicated, died while on a debauch, or, in rare instances, after a brief illness following it.

Through the kindness of the Coroner of Philadelphia who, of necessity, is called upon to issue death certificates in such cases, I have had, during the last two years, the opportunity of making observations which some time ago numbered *two hundred and fifty cases*, belonging strictly to the category above referred to, and mainly from my own autopsies. In this city with a population of about one million, there are annually nearly two thousand cases of sudden death subject to legal inquiry. The proportion of cases of alcoholism appears thus remarkably large. I am indebted to my colleague, Coroner's Physician Stewart, for some of his autopsy material and his corroboration of the "pig-backed" kidney, and to Drs. George H. Chambers and A. Smith for valuable assistance in these observations.

A. Anatomical Considerations. I have met with two varieties of the kidney lesion now to be described:

First, a hard cyanotic form of the "pig-

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backed" or alcoholic kidney, in cases of sudden death; and

Second, a soft oedematous form of the same, in cases where death had been delayed.

First form: In nearly all persons who died more or less suddenly from the direct effects of alcohol, I found the kidneys to present the following appearances: The kidneys are always above the normal size; they are often from one-third to one-half larger, and are sometimes even double their usual size and weight. They are longer and thicker than normal, while their width is diminished, so that the natural, characteristic flat kidney, or bean-shaped form, is changed to a swollen, rounded, sausage-like or "pig-backed" appearance or form. They are bluish-red or livid in color from being engorged to their utmost capacity with venous blood, reminding one of the rounded enlarged appearance of animal kidneys when over-filled by some artificial injection mass. In most cases these "pig-backed" kidneys are elastic, but quite hard when freshly removed from the body; but unlike the cyanotic induration from heart disease, they gradually become softer, unless the renal vessels are at once tied to prevent escape of blood from them.

On section the cut surface presents the same dark red or livid appearance as seen in the cardiac form of renal cyanotic induration. While in the latter, however, the pyramids of the medullary substance are especially congested, in the alcoholic cyanosis the whole kidney substance is almost uniformly dark red. Dark blood oozes from the cut surface and blood extravasations can be often seen by the naked eye, principally below the capsules.

Second form: The other form of the alcoholic kidney referred to, was met with in persons who had died some time after a debauch (suffering from a few hours to a few days from delirium tremens previous to death). The kidneys of such subjects are found to be soft and flabby from oedema, and they are less red; otherwise presenting the same appearance as the hard variety of alcoholic renal cyanosis, including the "pig-back" shape of the kidneys.

In either form of this kidney lesion the capsule strips off easily, the surface is smooth, but often lobulated, not unlike the lobulation seen in congenital conditions. If the alcoholic lesion is not complicated by heart disease, the "pig-backed" kidney is less heavy in proportion to size, and less firm and tough and also less dry than the kidneys of the pure cardiac renal cyanosis. This is probably due to the greater amount of blood present and to the accompanying oedema, which I have not seen in the cardiac variety.

In the purely cardiac affection, however enlarged, the kidneys retain their natural flat shape. This may be explained by the fact that in the latter case the morbid change is slow, gradual, and uninterrupted, and the resulting change (the induration from the connective tissue overgrowth) is a permanent one—whereas in the alcoholic cyanosis the process is rapid and intermittent, the effects of the alcohol being paroxysmal with each debauch and the mere resulting congestion receding more or less during

the intervals of sobriety. It is probable that in the latter case the kidneys may return temporarily to their normal condition and shape.

A transverse section through the middle of the kidney from a case of alcoholic cyanosis is sometimes nearly circular, while a similar transverse section through a normal kidney or one of a cardiac renal cyanosis is oval or wedge-shaped and at least twice as long as broad.

Both kidneys are equally affected, sometimes the upper ends are found to be flattened or compressed anteriorly from pressure exerted by the enlarged liver on the right, and an enlarged spleen on the left side; the left kidney, as a rule, was more often found to be of a typical "pig-backed" shape than the right, and more frequently compressed at its upper end.

One hundred specimens of these kidneys were weighed and revealed the average weight of 250 grammes or a little over seven ounces—about two ounces over the normal average weight. The average variation in size and weight between the right and left kidney was insignificant.

A certain proportion of the 250 cases included in my records showed, besides the alcoholic renal lesion, appearances of Bright's disease. It is difficult to draw in all instances a definite line between these two lesions, but I would say that in about 10 per cent. (or in 25) of the cases Bright's disease was evident. In 16 of these cases chronic catarrhal nephritis with formation of small cysts was noted; and in 9 cases chronic interstitial nephritis or a tendency to the granular contracted kidney was apparent. But, however affected otherwise, the "pig-back" shape of the kidneys was always a conspicuous feature in these cases. It appears that this chronic venous congestion (and oedema, when present) of alcoholism affects structurally diseased and normal kidneys in the same manner and manifests itself alike in both.

B. The cause of the "pig-backed" shape in the alcoholic renal cyanosis. The reason why the alcoholic kidney presents the roundish swollen shape is because the organs are over-distended with blood and serum, the kidneys acquiring the properties of, and in extreme cases may be compared with, true erectile or cavernous organs.

A "pig-backed" shape of kidneys can easily be induced experimentally in animals when the renal veins are tied or when kidneys removed from the body are artificially injected with a liquid.

Experiments have also shown that a hypertrophy of one kidney follows the removal of the other kidney, and under these circumstances I have seen the remaining kidney enlarge to double its natural size and acquire a typical "pig-backed" shape from being overfilled with blood.

A nearly similar appearance of hyperæmia of the kidneys may be seen in cases of acute fever, particularly, in cases of infective fevers of children when death occurs during the height of the attack.

The loss of the flat kidney shape may be compared also with the loss of the biconcavity of red blood disks or corpuscles which when immersed in any liquid which they absorb become spherical bodies.

C. Microscopy. Sections were made from a number of specimens of the alcoholic kidneys, care being taken to examine microscopically all the different structural parts of these organs. For brevity's sake, only the essential changes will be referred to.

The cortical and medullary portions of the kidney appear to be similarly affected, but, as a rule, the latter less so than the former.

In the hard, cyanotic form of the alcoholic renal cyanosis the Malpighian glomeruli of the cortical portion are highly congested, and extravasated blood is seen within many of the Malpighian capsules; some are enlarged to double their normal size, but the majority appear rather compressed by the surrounding swollen uriniferous tubules and by the over-distended blood-vessels. The latter (both arteries and veins) show thickened walls and are deeply congested nearly everywhere throughout the organ. The stellate veins in particular are enormously distended and plugged up by blood corpuscles as if thrombosed. The lymph spaces beneath the capsules as well as around the tubules are also dilated and distended, and are either seen empty or they contain extravasated blood. In some sections the kidney structure gives the appearance of a cavernous change.

The epithelium of the convoluted tubules is cloudy, swollen, opaque, and the nuclei obscured by granules, which, however, become cleared up upon the addition of a solution of sodium hydrate. The epithelial cells appear to be double their normal size and although no visible desquamation or proliferation of the cells could be noted in any one of the typical specimens examined, it appears that the lumina of the tubules are obliterated completely, as seen in transverse sections of the tubules.

In the straight tubules of the medullary portion the same changes have been noted, but are less marked.

The connective tissue elements of the pure alcoholic kidney show no pronounced hyperplasia. In the sections of most of the kidneys it is hardly perceptible. Sections in which the epithelial lining was forcibly removed by means of a camel's-hair brush showed the connective tissue to be dense, stiff, often pigmented, but only moderately increased in a few places around the bloodvessels.

The connective tissue increase was notably prominent only in sections derived from occasional specimens which showed at the same time other evidences of inflammatory changes (Bright's disease), and in cases complicated with heart disease. I do not remember having seen in one of the sections of the pure alcoholic affection tube-casts or blood within the uriniferous tubules.

In sections from the soft, oedematous form of the alcoholic kidney, the minute changes were essentially the same, but not so marked as those described above. Extravasations of blood were less frequently seen, while the connective tissue elements appeared occasionally more or less proliferated. In sections from some cases, however, no other change could be observed than the very prominent cloudy swelling of the epithelium peculiar to all the specimens of the alcoholic kidney.

I do not think it necessary to describe the sections

from the few cases in which Bright's disease and the alcoholic renal cyanosis coexisted.

D. Pathology. From the above studies it appears that the exact position of the "pig-backed" or alcoholic kidney in morbid anatomy is as follows: there are, as stated before, two forms or perhaps stages of this lesion. *First*, a *chronic or venous congestion with cloudy swelling*, or a renal cyanosis with hypertrophy represented by the *hard, red, "pig-backed" kidney* (the earlier and more active lesion); and *second*, a *hypertrophy with edema* of the kidneys, represented by the *soft "pig-backed" kidney* (the more latent and less rapidly fatal lesion). The latter I met less frequently than the former, and believe it to be the later stage of the alcoholic kidney. Whether the lesion described eventually develops into Bright's disease, if the victim survives, I am unable to tell from my purely post-mortem observations.

I met with only twenty-five cases of established Bright's disease among two hundred and fifty cases of confirmed drunkards, from which it appears that Bright's disease is not more frequent in drunkards than in any other class of patients. Some of the foremost clinicians and authorities on kidney diseases (Bartels, Rosenstein, Tyson, etc.) are disinclined to give a prominent place to alcohol as a causative factor of Bright's disease, which appears to be in accord with the above observations.

That either form of the alcoholic renal cyanosis may be fatal in itself, without terminating in Bright's disease, I have satisfied myself, and hence I believe that it deserves a place as a separate and independent kidney affection.

The true mechanism of the *death* of drunkards from this alcoholic renal cyanosis is a matter of conjecture. If causes such as heart failure and oedema of the brain (which probably were the ultimate, immediate causes of death in some of my cases) are eliminated, a fatal uræmia is then the only plausible explanation. The empty urinary bladder in some cases, the high specific gravity of the urine, when found at all, post-mortem, in the bladder, and the histories which I had obtained in a few of the cases, favor such a view. In many cases of sudden death of drunkards it appears that death must have ensued under conditions similar to those of asphyxiation, because the blood in these cases was found dark and liquid throughout the system. A like condition of the blood, however, I have seen in certain other forms of poisoning, such as chloral, hydrocyanic acid, and carbolic acid. This subject requires further study.

But, while I have seen hundreds of drunkards dead of alcoholism, thousands of equally hard drinkers are at large and well. It appears that under favorable conditions the alcoholic renal cyanosis is capable of returning to the normal state of the kidneys, and that in its early stages it may be only a temporary lesion, paroxysmal, like the excessive drinking. Quite significant seems to me the experience of the drunkards themselves. One of them, a brewer, who had been a number of times prostrated from alcoholic excesses, and whom I treated about ten years ago for delirium tremens, told me that of

late years he keeps himself well, because he stops drinking beer at once for a day as soon as he fails to urinate about every hour or two. I examined his urine lately and found no traces of renal disease.

E. Pathogenesis. The ordinary cyanotic induration of the kidneys, the result of long-continued permanent passive congestion of these organs, caused principally and directly by organic heart disease and indirectly by aortic and pulmonary affections, has been recognized as a separate kidney affection since the time of Traube. Tumors pressing upon the vena cava or upon the renal veins, or thrombosis of the latter also produce renal cyanosis. So I should think any cause interfering with the return of blood from the kidneys will produce renal cyanosis, even if the cause resides in the kidneys themselves. The kidneys are organs especially predisposed to congestion, on account of their close and direct vascular communications with the large abdominal blood channels, and the renal veins, as Tyson well puts it, "are without valves and are the first, therefore, to receive the brunt of stagnation."

The alcoholic or "pig-backed" kidney we have seen to be essentially a renal cyanosis also, only differing, as pointed out above, in some anatomical features from the known cardiac renal cyanosis. The essential etiological factor, however, is in both the same, namely, the chronic venous congestion. The question is only as to the mechanism of the production of the alcoholic cyanosis. In alcoholism we must look to the kidney substance itself for the cause of the obstruction to the renal circulation, because there is, as a rule, no cause for it outside of the kidney: no disease of the thoracic viscera and no thrombosis of the veins. Of the latter fact I have satisfied myself from the examination, in a number of cases, of the vena cava and the renal veins. Besides, in most of my rapidly fatal cases of alcoholic cyanosis I found the blood to be non-coagulable as stated before. It is possible that the large, fatty liver, which sometimes reaches an enormous size, may be held accountable for the pressure upon the large abdominal venous trunks; but I have often seen "pig-backed" kidneys in drunkards with but moderate hepatic enlargement.

I have heard Virchow say that "beer drinkers have *hypertrophied* kidneys." This view is also expressed by other pathologists, but no explanation is offered, nor have the anatomical peculiarities of the kidneys of drunkards been described. In relation to the pathogenesis of the alcoholic renal cyanosis the following explanation suggests itself:

It is well known that in persons who ingest great quantities of fluid, particularly alcoholic beverages in dilute form, the kidneys are strained to over-work. The quantity of urine normally passed by such persons is enormous so long as the kidneys act at all, and can at times be favorably compared with the quantity of urine passed in diabetes. It is evident that such over-work must invite a constant active (arterial) hyperæmia which of necessity produces a hypertrophy, due to a cloudy swelling of the epithelium and an overgrowth of all the structural constituents of the kidneys. A long continuance or a constant repetition of these conditions

leads eventually to a passive (venous) congestion, which persists or increases or subsides according to the repetition and the duration of the debauches of the drunkard. The renal circulation of the blood is retarded by the pressure of the swollen epithelium of the uriniferous tubules as exerted upon the vessels—a pressure which the thicker walls of the inter-tubular arteries and arterioles can resist more readily than the soft and thin walls of the corresponding veins. There appears to be also thrombosis of the stellate veins. The exit of blood is thus retarded while the arterial pressure continues unabated and keeps the kidneys constantly overfilled with blood. Eventually the kidneys are filled to their utmost capacity with blood overcharged with carbonic acid, and in consequence also with serum, which, leaking out of the obstructed veins into the renal lymph spaces, makes the kidney tissue edematous; blood extravasates also, and adds to the firmness, redness, and roundness of the organ. Finally, the renal circulation comes to an entire standstill, coincident probably with a suppression of the urinary secretion.

This seems quite evident from the post-mortem appearances and from the swollen, cyanotic, and sometimes edematous "pig-backed" kidney of drunkards, and is suggested also from the observation derived from the microscopical examination of sections of these kidneys.

I will return to these studies in a future paper.

F. Statistical Remarks. Of the 250 cases of sudden death from alcoholism so far analyzed, 176 were men and 74 women. The hard, red form of the "pig-backed" kidney was found in men, principally in the younger and middle aged; while the softer edematous form was more common in men of advanced age and in the women. The kidneys in which Bright's disease was coincident with the alcoholic lesion were mostly those of persons in advanced life.

The alcoholic renal lesion was nearly equally divided between persons of Anglo-Saxon and German descent, and, so far as I could perceive, equally between whiskey and beer and ale drinkers. I cannot speak about wine drinkers who in this country belong to the higher classes of society, and are seldom reached by the scalpel of the pathologist.

It is interesting to note in connection with this point that the large, fatty liver (occasionally more or less indurated, but not contracted) which I met with indiscriminately in nine-tenths of all cases of death from alcoholism was equally distributed between all the denominations stated above, including imbibers of strong and of dilute alcoholic beverages.

The following order in the occurrence of the important and more frequent lesions may be roughly given from my autopsy records of 250 persons who died from alcoholism strictly:

The "pig-backed" or alcoholic kidneys	248 times.
Fatty, infiltrated, enlarged liver	220 "
Cystitis, acute and chronic	170 "
Mammillated stomach (or chronic thickening of walls)	150 "
Congestion and edema of brain (meningeal and ventricular)	150 "

Simple cardiac hypertrophy	90 times.
Atheroma of vessels and valvular heart disease	50 "
Acute gastritis	50 "
Bright's disease (various forms)	25 "
Phthisis	20 "
Cerebral apoplexy	10 "
Cirrhosis of liver, with contraction below normal	6 "

I will make no comments upon the above figures in the present communication. The lesions of alcoholism other than the "pig-backed" kidney, I will consider on another occasion. Of great interest are the changes in the stomach, liver, and brain. Brief communications by myself upon some of the lesions of alcoholism may be found in the proceedings of the Philadelphia Pathological Society, 1885-86, when published.

The brains of confirmed drunkards should be studied by psychologists. The claim that chronic drunkenness is a form of insanity may perhaps be found to have some foundation.

G. The Medico-legal Aspect. A thorough knowledge and correct interpretation of the post-mortem appearances of alcoholism is perhaps to no end more important than when the life or welfare of a fellow-creature is at stake. There is a great deal to learn in this direction generally, and in no department of medical science are text-books more indefinite and "behind the times," and more rich in errors, than in the subject of medical jurisprudence.

I have myself once testified in court in an insurance case—and I know of other physicians who have done so—that "a certain person who had a large, fatty liver, to our best knowledge and belief was not likely to have been a hard drinker during life, chiefly because at the autopsy no cirrhosis of liver was found!" This was fully in accord with the teachings of our masters in medicine and with text-books. Yet, I am sorry to say, it is entirely wrong; and the jury decided against the insurance company on account of such erroneous medical testimony.

My experience has since taught me that cirrhosis with contraction of the liver is at least as rare an affection in drunkards as it is in "teetotalers," and that the traditional "hobnail" or "gin-drinker's" liver is not diagnostic at all, while the large, fatty liver is one of the most prominent signs of alcoholism. The facts are that in 250 drunkards I found the enlarged, fatty liver 220 times, and the contracted, cirrhotic liver but 6 times.

Often when a drunkard falls dead on any occasion, a cry of murder is raised, especially when bruises are found upon the body. It is here that a familiarity with the post-mortem appearances of fatal alcoholism is particularly necessary and nowhere can ignorance on the part of the examiner do more harm than here.

The constant occurrence of the "pig-backed" or alcoholic kidney in hard drinkers who perished from their drinking, and the rarity of kidneys of such character in those who are not confirmed drunkards, induced me to regard the kidneys as a valuable sign in post-mortem diagnosis; and next to the presence

of alcohol in the stomach, they are, together with the large, fatty liver, the most valuable proof that alcohol was operative or had contributed in producing death.

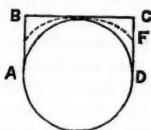
The "pig-backed" or alcoholic kidney, while a valuable diagnostic sign of the effects of the prolonged abuse of alcohol, may not show itself in persons who had been but moderately addicted to the use of alcohol, and in such case alcoholism should not be given as the cause of death.

REPORT OF
TWO HUNDRED AND TWENTY-ONE CASES OF
CATARACT EXTRACTION.¹

BY GEORGE STRAWBRIDGE, M.D.,
OF PHILADELPHIA.

Since the publication of my report of forty operations, which appeared in the *Philadelphia Medical Times* for February 19, 1876, I have performed two hundred and twenty-one operations, and all by the upward modified corneal flap method, which may be described as follows:

Incision.—Erect two perpendiculars, AB, CD (*vide woodcut*), tangents to the cornea at its horizontal diameter, join these above by a line tangent to the cornea at its upper border BC. Select two half-way points on these vertical lines as points of puncture,



and counter-puncture, with the centre of the incision a tangent to the upper corneal border. This will give an incision of about 11 mm. in extent, and in the corneal tissue, with the exception of the small scleral flaps at the points of puncture and counter-puncture, and the height of the flap CF being about 2.75 mm., makes this a compromise between the corneal flap and the Gräfe linear operation, and thus lessens the risks incident to either.

The iridectomy and opening of the lens capsule do not differ from the Gräfe operation, the lid speculum being often removed at the completion of the corneal incision, if the patient shows great anxiety, the lids being then kept open by the finger of the assistant.

The lens removal in many of these operations was accomplished by upward inward pressure with a Daniel spoon on the cornea at the puncture of the middle and lower thirds; but, latterly, I have preferred, after removal of the speculum, to exert a similar pressure by the index finger on the lower lid, thus avoiding rubbing of the corneal epithelium.

On completion of the operation, both eyes were closed by a compress and bandage, and the patient placed in bed.

¹ Read before the American Ophthalmological Society at New London, July, 1886.

After-treatment.—If the patient rests quietly without pain, the eye is not disturbed for twenty-four hours, at which time the compresses are changed. The eye is washed out (latterly with a two per cent. solution of boracic acid), a drop of a four grain solution of atropia sulphate is applied and bandages replaced. This proceeding is repeated once or twice a day as circumstances indicate.

My practice formerly was to insist upon perfect quiet, in a horizontal position, in a darkened room. Further experience would lead me to believe that this was a mistake, and at the present time I make it a rule that the patient shall be *absolutely comfortable*, change of position (with the nurse's aid) is freely allowed, the room in many cases is not even darkened (particularly has this been the case with hospital patients), except at the time of dressing the eye, and I am sure that this has been a great advantage to the health and good humor of both patient and nurse. As cataract operations generally concern the aged and infirm, I am careful to make the food as nutritious as possible. Whiskey and quinine are often given, and a large choice of food allowed.

During the past year, acting on the plan that the course of life of the aged should be changed as little as possible, I have frequently allowed the patient, with assistance, to sit up in bed twenty-four hours after the operation, and on the second day to be moved to a chair, and on the third day a gentle walk about the room is allowed. I am inclined to believe that any risk that may be run by this plan is much less than the debilitating effects of a recumbent position in bed, continued for a number of days.

In regard to antisepic dressings, three-fourths of these cases had no such treatment; with the remainder, a two per cent. solution of boracic acid was used as a wash at the time of dressing of the eye. I cannot say that I place much importance on its use.

The use of cocaine as a local anæsthetic.—Method of application: drop one drop of a two per cent. solution of hydrochlorate of cocaine in the eye, wait one minute, then apply a second drop to the eye. This drug has been used in forty-eight cases, with great relief of pain to the patient. The first case in which it was used suffered, a few hours later, from a violent purulent inflammation, totally destroying the eyeball. This case occurred at Wills Hospital, and was quickly followed by two similar cases in the same hospital, which led to the belief at that time that the cocaine was acting as the exciting cause. Further experience has not confirmed this view, and, therefore, its use is continued.

Ether as an anæsthetic was used in four cases because of the impossibility of controlling the patient without its use. I am decidedly of the opinion that the depressing sequelæ of ether are detrimental to these cases.

SUMMARY OF RESULTS.

Successes	85.2 per cent.
Partial successes	8.1 "
Failures	6.7 "
	100.

In 8 cases: V. =	$\frac{20}{XX}$	In 5 cases V. =	$\frac{10}{LXX}$
" 14 " V. =	$\frac{20}{XXX}$	" 26 " V. =	$\frac{20}{C}$
" 41 " V. =	$\frac{20}{XL}$	" 14 " V. =	$\frac{20}{CC}$
" 20 " V. =	$\frac{20}{L}$	" 12 " V. =	$\frac{17}{CC}$
" 3 " V. =	$\frac{20}{LX}$	" 7 " V. =	$\frac{12}{CC}$
" 24 " V. =	$\frac{20}{LXX}$	" 5 " V. =	$\frac{8}{CC}$
" 4 " V. =	$\frac{18}{L}$	" 18 " counts fingers from 3 to 5 feet.	
" 1 " V. =	$\frac{15}{L}$	" 3 " V. = light perception.	
" 1 " V. =	$\frac{15}{LX}$	" 12 " V. = o	
" 3 " V. =	$\frac{15}{LXX}$		221 total.

MEDICAL PROGRESS.

THE DESTRUCTIVE ENERGY OF THE TINCTURE OF THE CHLORIDE OF IRON ON THE TEETH.—A paper with the above title was recently read before the New York Odontological Society, by GEORGE W. WELD, M.D., D.D.S.

It was shown conclusively that the tincture of the chloride of iron of the official strength had but little, if any effect upon the enamel structure of a tooth when immersed in the same for a period of twelve hours, but that when immersed in a solution of the tincture and water in proportion of one ounce of water to one drachm of the tincture, the enamel was materially injured in five minutes.

Two specimens of teeth which had been immersed in the tincture and alcohol were shown, and compared with teeth which had been immersed in the tincture and water. It was observed that although the alcoholic solution used contained the same quantity of the tincture and possessed apparently the same relative strength, and the teeth were immersed for the same length of time, yet no injurious effect was produced on the lime-salts of the teeth. This was attributed to the fact that alcohol is a dehydrating compound and that the peroxide which is formed in the alcoholic solution is of the anhydrous form, and in character very compact, adhering closely to the surface of the tooth, thereby preventing immediate chemical action; whilst, on the other hand, in the presence of water the peroxide which is precipitated is the hydrated form and flocculent in character, does not so well adhere to the surface of the tooth, leaving the free hydrochloric acid in the solution to unite the lime-salts with greater facility.

The teeth immersed in an ounce of the elixir of the pyrophosphate of iron with one drachm of the tincture of the chloride added for a period of twenty-four hours, produced apparently no chemical effect on the enamel; but with the same quantity of water and the tincture the enamel was completely destroyed. The elixirs are composed of nearly twenty-five per cent. of alcohol, the presence of which, as observed in the strong solution of the tincture, and in the alcoholic solution, affords a protection to the enamel of the teeth in the manner described. But it is to be noted that when a tooth is immersed in a solution of the tincture and simple syrup,

in the above proportions, the enamel is but little affected. This is due to a mechanical reason or a condition of fluidity of the solution—i.e., the presence of the sugar in solution coats the surface of the enamel, preventing the chemical affinity between the acid, or perchloride of iron, and the lime-salts in the teeth.

The manner in which syrup modifies the destructive energy of the tincture on the enamel was beautifully illustrated by the effect produced on the specimens of teeth which had been immersed in a weak solution of phosphoric acid, viz., "Horsford's acid phosphate," "Phos-acid," and "Phospho-muriate of quinine compound." The first two of these proprietary medicines are watery solutions, and their effect is to destroy the enamel of a tooth in an hour, whilst the last one, which is a syrupy solution (each fluid-drachm containing two grains of free phosphoric acid), produces but little, if any, injurious effect on the enamel in twenty-four hours.

When a drachm of the tincture is added to an ounce of Vichy-water, a slight effervescence occurs, indicating that the sodium bicarbonate contained in the water has neutralized a part of the free acid contained in the tincture; in consequence, when a tooth is immersed in such a solution, the destructive energy of the iron is to a great extent modified. Unless the specific nature of the tincture of the chloride of iron is materially affected (and the peculiar odor of the tincture remains) there seems to be no reason why this preparation of iron, at least in all cases of anæmia, should not be administered in combination with Vichy-water.

There are then three menstrua which may be employed to modify the destructive energy of the tincture of the chloride of iron on the enamel of the human teeth. The first is alcohol in some form; the second is Vichy-water, which neutralizes to a slight extent the free acid contained in the iron; and the third is some form of an elixir or simple syrup.—*American Journal of Dental Science*, August, 1886.

RHEUMATIC HYPERPYREXIA.—DR. H. BARNES, in a paper read before the Carlisle Medical Society, urges that in all cases of acute rheumatism, as soon as there is any indication of nervous symptoms, and particularly in patients of a high degree of nervous susceptibility, a careful watch should be kept on the temperature. Dangerous symptoms may be sudden in their onset, and medicinal treatment seems entirely to fail to arrest them. He recommends the application of cold when the temperature reaches 105° . The graduated bath is the method he most approves, commencing it at 90° and gradually reducing it to 70° . As soon as the temperature is sufficiently lowered, the treatment should be suspended and the patient placed in warm blankets, otherwise dangerous symptoms of collapse may supervene.—*Edinburgh Med. Journ.*, June, 1886.

BENZOATE OF SODIUM IN ERYsipelas.—HABERKON records a series of fifty cases of erysipelas in which the internal administration of sodium benzoate in the aggregate daily dose of four to five drachms was attended with admirable results. The drug is given in suspension in mucilage or in some effervescent water. Under its influence the febrile temperature diminishes and in twenty-four hours attains the normal. At the same time there is noted a diminution of the other symp-

toms. No external applications were used. In only two cases was an augmentation of the dose necessary.
—*L'Union Médicale*, September 2, 1886.

SPARTEIN.—Until very recently, investigations into the properties of the two principles, scoparin and spartein, contained in the broom, have thrown but little light on the therapeutic power of the drug itself. Scoparin has not been shown to possess physiological activity, though it has been regarded by some as a diuretic; and Fick's careful experiments with spartein (*Arch. f. Exp. Path. u. Pharm.*, 1873, i.) led him to the conclusion that it acts chiefly on the nervous system. He found, indeed, that it influenced the heart, but concluded that its effects resemble those of atropine; and though increased urination was observed, it only took place shortly before the death of the animals experimented on.

Fronmüller ("Memorabilien," Heilbronn, 1878) attributed a diuretic action to spartein, but Rymond's conclusions from his researches in Vulpian's laboratory in 1880 ("Étude expérimentale de la spartein et de son sulphate"), though not in complete accord with the results obtained by Fick, agree with them in specifying the nervous system, not the kidney or heart, as the special seat of the physiological activity of spartein.

In 1883, spartein was mentioned by Sée as a cardiac medicament, and last year (*Compt. Rend.*, Nov. 25, 1885), he brought forward a series of cases of cardiac disease, in which the administration of sulphate of spartein had quickly, and in an enduring manner, strengthened and steadied the heart's action. Laborde, about the same time, pointed out the predominant action of spartein on the heart of the lower animals, and now, in conjunction with Legris, he gives an account of its physiological action and clinical use.

In some of the lower animals, according to these observers, spartein causes increased reflex excitability of the spinal cord; in all it strengthens the systolic impulse of the heart.

If three-fifths of a grain be given subcutaneously to a rabbit the heart's beat is strengthened and slowed, and the effect is still more marked if the injection be repeated; frequent and abundant urination likewise ensues.

A dog of from sixteen to eighteen pounds weight is not injuriously affected by one and a half grains of sulphate of spartein. Three times this dose causes a tetanic condition, with convulsions apparently spinal. Death takes place from paralysis of respiration, whilst the heart continues to beat regularly.

A small dose (one-seventh of a grain) is sufficient to strengthen the pulsation markedly in both large and small vessels.

In the frog, the heart's beat is greatly strengthened and quickened by spartein, and the organ continues to beat for an unusual time after death.

Laborde and Legris have not definitely determined the exact cause of the cardiac stimulation produced by spartein. They are inclined to think it is in part due to the action of the drug on the heart muscle, in part to centric nervous stimulation.

Sée, in his paper above alluded to, states that in man spartein strengthens the heart's beat and the pulse as powerfully as digitalis or convallamarin, and that its tonic action is even more durable. He says, too, that it regulates cardiac rhythm better than any other known

drug; that it quickens the heart's action in grave atonic conditions; that it acts in an hour or more after its administration; that its effects last three or four days after its exhibition has ceased.

Laborde and Legris agree almost altogether with these statements; they only find the pulse increased in frequency when it is unduly slow, but they at times noted slowing when the heart's action was unduly quick. They find, however, that the effects of spartein usually appear in half an hour. Seven cases of cardiac disease are recorded in which spartein was taken with advantage, and tracings are given to illustrate its influence. In five of the cases no valvular lesion was diagnosed, but either indications of asystole or hypertrophy with palpitation. In two, mitral stenosis was present. In all, the heart's action markedly improved under spartein, in doses of one and a half to two and a quarter grains. They recommend that the drug should be given in doses of one and a half to three and three-quarter grains daily:

1. In cases where the heart is weak from tissue alteration, or unable to overcome obstacles in the circulation.
2. Where the pulse is irregular, intermittent, or arrhythmic.

It has the advantage of acting quicker than digitalis, and it is not cumulative.

As a diuretic, they recommend spartein to be given in an infusion of the flowers of the broom. In cardiac dyspncea, sulphate of spartein may be combined with iodide of potassium, and associated with inhalations of pyridine.

The contradiction between the results of Laborde and Legris, and those obtained by Fick, Rymond, and other observers, is so marked that further investigations into the subject are required, but the diuretic influence of broom is easily comprehensible if spartein has the cardiac influence attributed to it by recent French observers.—*Manchester Medical Chronicle*, September, 1886.

ON CASES OF SUDDEN DEATH RESULTING FROM VENOUS THROMBOSIS AND EMBOLISM AFTER FRACTURES OF BONES.—PROF. P. BRUNS, of Tübingen, gives one case of his own and a tabular synopsis of thirty-five extant cases. Analysis of these shows that the fractures occurred most frequently in the lower extremity, and in persons of from forty to sixty years of age. The immediate cause of thrombosis of the veins consists in compression or injury of the veins at the seat of fracture; and some predisposition is usually present on the part of the patient, such as varicosities or circulatory impairment. Embolism may occur at any time between the fourth and seventy-second day after the fracture, and death may result immediately, from asphyxia or syncope, or after a longer period of time from infarction of the lung, or, finally, recovery may take place.—*Annals of Surgery*, September, 1886.

HYDROFLUORIC ACID IN PHTHISIS.—In the Medical Section of the Congress of the French Association for the Advancement of Science, session of August 14, 1886, M. SEILER described his method of administering inhalations of hydrofluoric acid in cases of phthisis. With the aid of a jeweller's bellows air is passed through a solution of the acid in three times its weight of water, the mixture being kept, of course, in a gutta-percha vessel. The air, thus impregnated with the acid, is introduced into the apartment of the patient in the ap-

proximate proportion of ten litres for each cubic metre of air in the room.

Seiler states that such treatment has been maintained daily during twenty to thirty successive days in sessions of an hour each, in a number of cases, that the inhalations are entirely innocuous, and that they often effect great amelioration of the disease.—*Le Progrès Médical*, August 28, 1886.

NITRITE OF AMYL IN OPIUM NARCOSIS.—*L'Union Médicale* reports a case of opium poisoning, in which the inhalations of nitrite of amyl brought on a rapid cure, when belladonna had failed, and the patient was almost beyond help.

TARTAR EMETIC IN LABOR.—In a paper on "Neglected Remedies," which appears in the *Medical Times* of September 18, 1886, DR. CALEB GREEN writes as follows: It seems not to be very generally known that tartar emetic is one of our most efficient agents in promoting parturition. When the pulse is tense, the os rigid, the skin dry and hot, the advance of the head slow, I have seen, by the use of small doses of antimony, the most prompt and happy change for the better. The pulse softens, the skin becomes moist, the rigid os relaxes, the vagina becomes bathed in a plentiful supply of mucus, and the uterine contractions hasten on to a speedy termination of the labor.

It is not a substitute for ergot, but it has properties which makes it much oftener available as a means of hastening labor to a happy termination. If the dose can be so graduated as to produce its effect as a parturient just short of nausea, and especially short of vomiting, the effect seems to be better than where vomiting occurs.

THE TREATMENT OF FEVER BY ELECTRICITY.—PROF. E. DE RENZI, having by chance observed a case of quartan fever cured by the application of electricity, instituted a series of experiments in this direction, and has formulated as a result of these observations, the following conclusions:

1. Fevers of malarial origin resist the action of the electrical current much more than do those symptomatic of bronchitis, pulmonary phthisis, etc.

2. During the application of electricity the temperature remains elevated, or even rises to a fraction of a degree; but soon after, at the most within an hour or two, a fall of several degrees occurs.

3. The best effect is obtained by holding a moist electrode in the hand while a metallic brush attached to the other pole is swept over the surface of the body.

4. Arterial pressure is increased during the application, the skin becomes reddened, and often moistened with perspiration, and the pulse is increased in force. It is probable, therefore, that the antipyretic effect of electricity is due to the increased activity of the cutaneous capillary circulation, whereby calorific is rapidly lost.—*New York Medical Monthly*, September, 1886.

OIL OF TURPENTINE IN THE DIGESTIVE DISORDERS OF INFANTS.—DR. BEDFORD BROWN writes as follows in the *Journal of the American Medical Association* for September 25, 1886.

In the therapeutic management of the more painful and grave affections of the alimentary canal of infants, and in those of a harmless character attended with

suffering, I have for some years past been testing the virtues of the oil of turpentine as a curative agent. The use of turpentine in this class of affections has given me much satisfaction.

All infants are liable to transient attacks of painful colic, arising from temporary distention from accumulation of gas in the stomach, or from the presence of acids. But artificially fed infants more particularly are occasionally subject to a violent, protracted, and intensely painful form of gastralgia in which appetite and digestion are suspended, accompanied with rapid reduction of flesh and strength, sufficiently to endanger life. Vomiting may or may not be present. There may be slight diarrhoea or constipation. The affection is invariably attended with wasting of the tissues and suspension of development, anxious and contracted facies, but no fever except in advanced stages, when gastritis or duodenitis may be developed. Pain is the great and absorbing feature of the disease, which is a never-ending source of suffering to the little patient, and a source of perplexity to friends.

The disease may appear at a very early age. It does not appear to be associated with any organic lesion. It does not partake of the intermittent character of ordinary colic. But the pain is almost constant and unceasing, without relief from opiates. The abdominal walls are usually retracted. The shrill, penetrating cry of these little sufferers may often be heard, to the dismay and distress of all, pervading the entire house, day and night, except when under the influence of opium. On one occasion a feeble, emaciated, little infant was brought to my office, suffering with this affection, for treatment. Such were the shrill and distressing screams of the little creature, the wasted and piteous expression, that all transient callers were compelled to leave the room. The mother was robust and apparently in a vigorous state of health, and afforded an abundant supply of nourishment.

I think that in this case the child was suffering from an aggravated form of acidulous dyspepsia, with simple irritation of the gastric and duodenal mucous membranes. In two or three months this wretched little sufferer, under the turpentine treatment, combined with a few simple anodyne and alkaline remedies, was converted into a rosy, fat, merry, healthy infant. I have found the following formula a useful remedy in this class of cases:

R.—Mucilag. acac.	..	..	..	..	f3iss.
Soda bicarb.	..	..	..	grs. x.	
Chloroformi.	..	..	..	gtt. x.	
Ol. terebinth.	..	..	..	..	3ss.—M.

Sig.—A teaspoonful every two or three hours to an infant of six months.

ANTISEPTIC VASELINE.—DR. P. MÉNIÈRE advises when uterine dilators, of either metal or vegetable material, are to be introduced that they be previously lubricated with the following mixture, which is not only antiseptic but favors dilatation.

Vaseline	..	..	..	..	..	3ij.
Extract of belladonna	..	..	..	..	..	3j.
Bichloride of mercury	..	..	..	..	..	gr. $\frac{3}{4}$.

This pomade is best kept in long, narrow bottles, into which the instrument may be plunged before it is used.—*Gazette de Gynécologie*, September 1, 1886.

THE MEDICAL NEWS.

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SATURDAY, OCTOBER 2, 1886.

CONTAGIOUS PLEURO-PNEUMONIA.

FOR the past two weeks the daily press has contained reports of the detection of pleuro-pneumonia in cattle at Chicago, and the statements of Dr. Salmon, the Government Veterinarian, leave no room for doubting the existence of the disease. We are not surprised to find realized in this way the worst fears of veterinarians and cattle breeders. It has been known for some years that the disease prevailed more or less extensively in New York, New Jersey, and Pennsylvania. The State and central governments have been repeatedly warned of the extreme danger of allowing this plague to exist, and half-hearted measures have been taken to eradicate it. Not a month has passed, however, without the intelligence of outbreaks, which plainly showed that the disease still lingered in our midst.

The limitation of the affection to the Eastern States, while gratefully recognized, was forcibly urged as the very best reason for its complete suppression. Once past the Alleghanies, where would it stop? Now the country is face to face with the most serious problem in animal pathology which it has had to encounter. The existence of the disease in Chicago—the great cattle centre of the West—threatens directly the herds on the ranches, and only extraordinary precautions can prevent their infection. The matter is one of grave public interest, as involving one of the great industries of the country, and should be dealt with by the central authorities at once. The spread of the disease in the Western herds means the loss, directly and indirectly, of many millions of dollars, and a damage to the cattle trade from which it would take years to recover.

To an American, nothing is more remarkable in Europe than the extreme anxiety displayed by the Governments in the investigating of every case of disease in cattle, the stringent quarantine of suspected localities, and the enforcement of sanitary regulations which we scarcely here think needful in our civil or municipal affairs. But they have bought their experience dearly enough, and it is the burnt child who dreads the fire. Our country has been remarkably free from devastating cattle plagues, and it is difficult to get people to realize the full danger until the mischief is irremediable. Those best acquainted with the condition of things have repeated their warning, but, too often, to deaf ears, and it really looks as if some great calamity, such as the cattle plague which overtook Great Britain in 1865, were needed to arouse public opinion to the point at which the question could be dealt with as its importance demands.

In the present crisis the indications are plain. The districts in which pleuro-pneumonia exists should be declared infected; a thorough examination should be made of all suspected animals; the immediate slaughtering and burning ordered of cattle found diseased; the isolation of cattle which have been in contact with diseased herds; and the systematic supervision of infected regions until such time as all danger of further trouble is over. To accomplish this the inspectors must be armed with arbitrary powers, and the Government must be prepared to spend large sums of money, but every thousand dollars now spent will mean one hundred thousand dollars saved, if pleuro-pneumonia can be kept out of the Western herds. There should be no trifling, and the action to be effective must be immediate. Only a few weeks ago, pleuro-pneumonia broke out in the cattle at quarantine at Quebec, where all animals coming from Europe are isolated for three months, on purpose to prevent the importation of this disease, the incubation of which may extend to ten or twelve weeks. Rather than risk the introduction of the disease, the Dominion authorities ordered the entire lot to be killed and burned, at a loss of over three hundred thousand dollars. Just such stringent measures are now called for at Chicago; nothing less than the destruction of the affected animals will give a reasonable prospect of checking now, and ultimately eradicating, the disease.

THE TREATMENT OF GRANULAR CONJUNCTIVITIS.

IN the treatment of granular conjunctivitis one of two objects is to be kept in view: either to subdue inflammation when this is already excessive; or, when it is deficient, to excite it to greater activity, so as to lead to the absorption of the morbid tissue which has been formed. For the latter purpose various chemical applications have been used, and even

inoculation with gonorrhœal pus; while attempts have also been made by scarification to lead to atrophy and absorption of the granulations.

One of the most recent methods proposed for the treatment of trachoma is that described by DR. CECCHINI SETTIMO, of Modena, in the *Gazzetta degli Ospitali*, Nos. 100-103, 1885. It consists in destroying the granulations mechanically and chemically, by scraping and cauterization. All the cases Settimo has seen involved the upper lid, which he turns up, protects the eyeball with cotton soaked in a solution of boric acid or smeared with an inert ointment, and scrapes out with a Volkmann's spoon as many of the granulations as possible. He checks the hemorrhage with cotton dipped in cold water, and then practises a vigorous cauterization with pure nitrate of silver. Before doing this he pushes the lower lid against the reversed upper lid, and places between them a little cotton soaked in a solution of chloride of sodium, to protect the cornea. After the cauterization, the upper lid is well washed with the same solution, followed by a cold solution of boric acid. For the subsequent pain, he instils a solution of morphia and atropia, and applies light compresses, dipped in iced water. In some cases he applies a leech, or leeches, to the temple. The patient is ordered to keep the head elevated and the eye cool with applications of cold boiled rice, washing it out with boric acid solution.

The operation is contraindicated only when there is pronounced hyperæmia, in which case it is important to cure or to diminish this before scraping. Settimo prefers not to use an anaesthetic, as the contraction of the palpebral muscles helps the scraping process, although this is quite painful.

The operation may be done at one sitting if the granulations are soft and not very vascular, and the infiltration is not very great; but, if the granulations are hard and cartilaginous, it is advisable, but not necessary, to make the scraping in two or three sittings, at intervals of not less than three days. Chemosis is to be combated by taking blood from the temple, by incision of the external angle as in the method of Gräfe, and by deep incisions in the conjunctiva.

Settimo has used this method, combining it with the administration of iodide of potassium in twenty cases, with the most brilliant results, and naturally recommends it very warmly for general adoption.

More recently, KRAMSZTYK, in the *Gazeta Lekarski*, has called attention to a method of treating trachoma which was originally proposed by Wicheriewicz, and which consists in crushing the granulations between the thumb-nails of the operator, or by means of a pair of forceps. The operation is very painful; and, although it has succeeded in a number of cases, it does not appear to have any ad-

vantages over the method of Settimo, especially if the granulations are very numerous.

Both of these methods are so heroic, that surgeons must be strongly convinced of their utility and of the necessity for having recourse to them before they are likely to be generally employed. Meanwhile, it is interesting to note, that MINOR, in the *New York Medical Journal* for July 31, 1886, reports that he has had most excellent results with powdered boric acid dusted over the conjunctiva two or three times a day, or less frequently. The application causes pain lasting about thirty minutes, and a free serous discharge, which is soon followed by relief. The improvement in the conjunctiva and the clearing up of the cornea may not be very noticeable for a week, but after this time it will be apparent. Minor has found that boric acid ceases to be tolerated after three or four weeks, when some other drug must be substituted.

Hysterical Apoplexy.

At the meeting of the Société des Hôpitaux, August 13th, reported in the *Gazette Hebdomadaire*, No. 34, DEBOVE communicated the facts of an extraordinary case of hysterical apoplexy in the male. The patient, a man aged thirty-one, formerly quartermaster in the marines, suddenly lost consciousness and remained insensible for twelve hours; but without convulsions and without involuntary evacuations. For two hours there was complete paralysis of the left side, which gradually disappeared, so that in the morning, on admission to the hospital, there was only an enfeeblement with hemianæsthesia. There was no history of any previous malady, and the patient was a vigorous man, but of an emotional temperament. The diagnosis of a hysterical condition was based on the character of the anaesthesia and its cure by suitable agents. The insensibility involved the skin, mucous membranes, muscles, and organs of sense of the left side. There was limitation of the field of vision, lack of preception of violet color, and monocular polyopia. The application of a magnet caused the return of sensibility in the left arm, and at the same time a disappearance of sensation in the corresponding right limb. It required several days' application of the magnet to restore completely the sensibility of the left side. The motor paralysis followed the anaesthesia in its transference from one side to the other, and disappeared with the restoration of sensibility. Only a hysterical condition could present such features, and be modified and cured by the application of magnets.

LUXATION OF THE ULNA IN COLLES'S FRACTURE.

It is now about fifteen years since MOORE, of Rochester, called attention to the occurrence of dis-

location of the ulna and its separation from the triangular cartilage in Colles's fracture of the radius. He first observed these complications in the case of a woman, who, in a fit of mania, leaped from a third-story window, and broke her spinal column and both wrists. Four additional cases have been studied by him and have confirmed his convictions that, even when these fractures are the result of ordinary violence, they present the same features of a separation of the triangular ligament from the ulna, rupture of the lateral ligament, and tearing off of a portion of the styloid process of the ulna.

Moore's assertions have not so far secured the consideration they seem to deserve. Indeed, the credit of the discovery of the important relation of the dislocation of the ulna and fracture of the styloid process to Colles's fracture has lately been assigned to another investigator, Mr. Clement Lucas, whose observations were published in *Guy's Hospital Reports*, vol. xlii., for 1883 and 1884. These observations support the views so long ago expressed by Moore, although they differ from his in certain particulars.

There can be no doubt of the correctness of the statements of both Moore and Lucas. It is, moreover, certain that there is more or less displacement of the ulna from its connections at the wrist, with fracture of the styloid process, in many fractures at the lower end of the radius, in which these lesions are not discovered or even suspected. Moore estimates the frequency of these complications as about fifty per cent., and Lucas found them present in fifteen out of twenty-eight specimens in Queen's College Museum, which he subjected to a careful and critical examination.

THE NEGLECT OF VACCINATION.

We have noticed in the statistics of one of our large cities a recent marked falling-off in the number of operations performed by the public vaccinators, a fact which we fear portends evil in the near future. Although these data apply to a particular class, the smallness of the official returns of the past year or two, as compared with those of preceding years when smallpox was prevalent, may be taken as a fair index of a condition of the community in general, and is attributable to carelessness and neglect, so commonly observed during a season of immunity from the disease. When the incentive of fear is removed, people soon lapse into a condition of false security, and ignore the very measures which have procured for them a respite from epidemic visitation.

There are always in every community some people who reject vaccination under all circumstances. There are others who have their prejudices but are open to persuasion and conviction of their error. But the vast majority believe in the efficacy of the

operation, though they are often negligent about its performance, especially after the abatement or disappearance of smallpox. The number of unprotected persons is thus constantly increasing during an interval of exemption from this disease, and is greatest before an outbreak occurs.

The remedy for this condition of things is compulsory vaccination; but so radical a measure is not received with favor. The alternatives are the imposition of disabilities and warnings and persuasion. In a period like the present, the importance of vaccination should be brought to the attention of the public in every possible way, and every facility should be afforded for gratuitous vaccination with thoroughly reliable virus. The public school boards should rigidly enforce the rule prohibiting unvaccinated children from participating in the advantages of free education. Physicians, as well as the local sanitary authorities, should be earnest in their endeavors to secure the widest possible results of this beneficent discovery.

DR. SHAKESPEARE returned to Philadelphia last week from Europe, after a year's absence, during which time he has been engaged as the representative of the United States in investigating, under the direction of the Secretary of State, the causes, progress, and proper prevention and cure of cholera. For this purpose he visited, and prosecuted his researches in, the cholera-infected districts of Spain, France, Italy, and in India. He is now engaged in preparing his report, which, we understand, will be forwarded by the President to Congress, and will be published as an official document.

Dr. Shakespeare's friends in the profession of Philadelphia gave him a reception on Wednesday evening at the Hotel Bellevue.

THE CHARLESTON MEDICAL COLLEGE.

We are in receipt from the Dean of the Charleston Medical College of the following statement of the extent of injury suffered by the college building:

" It is impossible to use any of the lecture rooms. \$5000 would make the building tenable for the purposes of lecturing. It will probably require between \$8,000 and \$10,000 to put the College in its former condition. The portico in front of the building is completely destroyed. The public inspectors of buildings have decided that the roof should come down, because it is badly supported by the upper portions of the wall. The annexed building used for dissecting purposes is also completely destroyed.

" The temporary repairs would, therefore, consist in strengthening the supports of the roof, in preventing leakage, removing cracked plastering, and building a dissecting room.

"We have secured for temporary use the old Marine Hospital building, which will have to be repaired at the expense of about \$700. This will be done in time for the commencement of the lectures. The session will open as heretofore announced, on October 15th.

"To the above statement of the condition of the College it should be added that the institution has no mortgagable property, that is, has no funds, and, finally, that there is scarcely a probability of its participating in the general relief fund."

We have received for transmission the following contributions for the fund for the repair of the Charleston Medical College:

Philadelphia County Medical Society	\$100.00
Lea Brothers & Co.	100.00
Dr. S. Weir Mitchell	100.00
Dr. J. M. DaCosta	25.00
Dr. Laurence Turnbull	10.00
Dr. Charles W. Dulles	5.00

SOCIETY PROCEEDINGS.

THE AMERICAN GYNECOLOGICAL SOCIETY.

Eleventh Annual Meeting, held in the Hall of the Johns Hopkins University, Baltimore, Md., September 21, 22, and 23, 1886.

TUESDAY, SEPTEMBER 21.—FIRST DAY.

MORNING SESSION.

THE PRESIDENT, DR. THADDEUS A. REAMY, of Cincinnati, called the Society to order.

DR. H. P. C. WILSON, of Baltimore, delivered an

ADDRESS OF WELCOME.

In the name of the resident Fellows, of the general profession, and of the citizens of Baltimore, he extended to the Society a hearty welcome. "Were our hands as big as our hearts," he said, "we should kill you with kindness. Baltimore is ever ready and willing to welcome you whenever you are ready to come. I can assure you of the great interest which this community takes in the subjects of your deliberations."

DR. H. P. C. WILSON then read the first paper; it was entitled

THE DIVISION OF THE CERVIX BACKWARD IN SOME FORMS OF ANTEFLEXION OF THE UTERUS WITH DYSMENORRHEA AND STERILITY.

The operation, from want of a judicious selection of the cases, by being done by unskilled hands in proper cases, by being done in unsuitable cases, and from want of appropriate after-treatment, has been barren of good results in certain hands and followed by bad results in other hands. This operation has been substituted by the use of stems, sponge tents, and dilators, but the speaker had found no measure so safe and efficient in the classes of cases to which he shall call attention as the knife. The classes in which he would recommend the operation are:

First, those of anteflexion of the uterus, with a hard,

indurated cervix, where the body is bent upon the neck, or the neck upon the body, forming a more or less acute angle.

Second, those cases of acute flexion where the cervix is hyperplastic and indurated and dense as cartilage.

Third, those cases where there is a hard, unyielding, internal os, through which the probe passes with difficulty, and in its passage gives the sensation of passing over rough, dense cartilage, while the finger in the sulcus between the body and the neck in front gives the feeling of a strong cord tied around the uterus. The third class is frequently combined with the first, and often with the second. In a typical case calling for the knife, all these lesions coexist. Nearly all these cases are sterile. In all of them the Nabothian and utricular glands are hypertrophied and indurated.

The different methods of operating were then reviewed. If the patient escapes the secondary results which are liable to follow the use of tents, they are the most efficient means of overcoming the difficulty, next to the use of the knife. The forcible dilatation does not restore the anteflexed uterus. For the purpose of rectifying the difficulty, the knife is the surest means in the cases which have been referred to. Where the posterior lip of the cervix is divided, and the internal os is divided anteriorly and posteriorly, the circular muscular fibres are paralyzed and the longitudinal fibres contract and tend to rectify the position.

The method of operation was then described. With the patient under an anaesthetic, the uterus is drawn downward by a tenaculum in the anterior lip; the posterior lip is then divided with scissors up to the vaginal junction. An uterotome is next passed, and the internal os divided anteriorly and posteriorly to an extent sufficient to permit the introduction of a large sound. The parts are allowed to bleed freely. A pledge of cotton soaked in a mixture of Monsel's solution, iodine, and glycerine, is then introduced into the cervix and over this pledges treated with Monsel's solution and water and the vagina lightly tamponed. These are not removed until the third day. All manipulation of the uterus is avoided for at least two weeks. A sound is then carefully passed, and every second day the os is gently stretched with a steel dilator. The patient is allowed fully to recover from the operation, which usually requires one month. Local treatment is then suspended for one month, to allow the intrauterine mucous membrane to improve. The patient then returns, and applications of Churchill's tincture of iodine are made to the endometrium two or three times a week. The treatment, after the lapse of a month, is again suspended, to be resumed in the course of one or two months. If this after-treatment is not carefully and properly carried out, the operation had better not be done. The speaker had performed the operation 400 times, and had never obtained as good results from any other method. In no case has he had a death which could be attributed directly to the operation. If the patient is not disturbed by meddlesome after-treatment for ten days subsequent to the operation, there is not much danger of inflammatory troubles. There are some cases of dysmenorrhoea and sterility where this operation is entirely unsuited. It was recommended only in the cases described in the beginning of the paper. Several illustrative cases showing the good

effects of the operation in overcoming dysmenorrhœa and sterility were related.

DR. T. A. EMMET, of New York, said that he would have been willing, some years ago, to endorse all that had been said by the speaker. He thought that he had done as much harm as any one by this operation. We must separate dysmenorrhœa and sterility as being due to widely different causes. Mechanical dysmenorrhœa he considered a myth. We must also separate two conditions of flexion, one a flexure of the neck, a congenital defect, and the other a flexure of the body of the uterus, due to preceding inflammation outside of the uterus. Sterility resulting from this latter cause is not relieved by the operation, and its performance is attended with great risk to life. The congenital flexion is the only one in which he operates to relieve the sterility. There are a few cases of the inflammatory form of flexion where the operation benefits the reflex symptoms by its revulsive action. Where he has done the operation he has drawn the vaginal mucous membrane to the bottom of the wound and secured it with stitches. This does away with the necessity for plugging and the fear of hemorrhage. This operative procedure is not free from danger. He was aware of at least twenty deaths from it. If, as has been suggested by Dr. Wilson, all the effects of previous inflammation are removed, there is not the same danger, but he could not see that the operation will do any good.

DR. JAMES R. CHADWICK, of Boston, remarked that he had not been successful with this operation in curing sterility or dysmenorrhœa. He considered flexion as always congenital, the result of the persistence of the infantile shape of the uterus. This, he was convinced, is not confined to the anatomy of the organ, but also involves its function. The defect probably extends to other portions of the genital tract. The only cases in which he had had any results from operation had been where there was flexion with a small external os. In a certain proportion of these cases, impregnation had followed the operation. He held that the operation should be restricted to those cases in which there is flexion with a small external os, but in which the uterus seems to be well developed in other respects.

DR. W. H. BAKER, of Boston, said that while the immediate results were very gratifying, in many cases they were not permanent. The question arises, If this operation, which was performed so frequently, was successful, would it not have lasted? It was found that in many cases less severe measures would give equally good results. This has led to a clearer discrimination of the cases. Of late years he had limited the operation to the class of cases in which there is a congenital malformation and those in which there was seen an inflammatory condition, the results of which had been removed. The good results which Dr. Wilson reports must be explained by the great care in the after-treatment which he practises.

DR. FORDYCE BARKER, of New York, stated that some thirty years ago he had seen Simpson perform this operation a number of times. He performed it in his office, and did not seem to apprehend any danger from hemorrhage. He employed the operation in a few cases, but he soon gave it up. The only cases in which he employed it was where the narrowing was at the os externum.

DR. J. SCOTT, of California, had practised the operation. But while the immediate results have been good, he had been disappointed in the ultimate results. He had gradually come to limit the operation to the cases described by previous speakers. After the operation, the patient should be confined to bed at perfect rest, and hot water injections be employed every two hours.

DR. W. T. HOWARD, of Baltimore, remarked that he had given all the operations alluded to a fair and full trial. His experience has not shown him that any particular operation is the one for all cases. By the antero-posterior incision he had had some excellent results. With the precautions adopted in operating in other portions of the body an incision of this kind in the majority of cases should not be dangerous. Dr. Mundé, in a paper on this subject, reports over one thousand cases, with only nine deaths. He thinks, however, that forcible divulsion is attended with as much risk as incision. In his practice the method adopted has varied according to the case. In some he had employed the posterior incision, in others the bilateral incision; but in the majority of cases he dilates, using antiseptic precautions. He had never taken less than twenty to thirty minutes to complete the operation.

DR. H. P. C. WILSON said that he had not heard any thing in the discussion to convince him that in properly selected cases division of the cervix is not the best thing to do. As he had already said, if the operation is not followed by proper after-treatment, it had better not be done. The danger is not from the operation itself, but from the improper after-treatment.

DR. R. STANSBURY SUTTON, of Pittsburgh, then read a paper on

ANOTHER MODIFICATION OF EMMET'S CERVIX OPERATION, WITH A CASE IN POINT.

A case of old-standing neglected double laceration of the cervix was reported. The cervix was composed of dense, hard, hyperplastic tissue, almost cartilaginous in character. An operation by the ordinary method was out of the question, for the sutures would not have held. In order to remove the greatest amount of cicatricial tissue and overcome the condition, the following procedure was resorted to: the lower lip of the laceration was denuded of its altered mucous membrane, leaving only a narrow strip corresponding to one-half of the strip usually left to serve for the future os; the upper lip was treated in the same way, leaving the opposite half of the strip of mucous membrane. When the flaps were brought together, the strips of mucous membrane lay side by side, with the undenuded surface of one flap in apposition with the denuded surface of the opposite flap. In this way union in the position of the future canal was prevented. Good union followed the operation and at the end of three weeks a Simpson sound was passed without difficulty. This operation may be of service in certain cases where the usual operation cannot be performed.

DR. EMMET considered the modification to be an ingenious one, but its value can only be determined by future trial. In such cases, however, where there has been such cystic degeneration, it is often better surgery to amputate a portion of the cervix, so as to get into healthy tissue. In a certain number of cases, he had always performed amputation. He objected to ampu-

tation in so-called elongated cervix. If we remove the tissue to a depth below the follicles, the remaining dense tissue will gradually soften.

DR. GEORGE J. ENGLEMANN, of St. Louis, said that he had found no difficulty in preventing union, and had paid very little attention to the strip of mucous membrane. In such cases as had been described, he had cut away nearly all the mucous membrane and inserted a short piece of fine catgut. This maintains as large an opening as is necessary. When, however, we come to such extreme cases, it is better not to attempt what has been termed Emmet's operation, but to resort to partial amputation, as is performed in Germany.

DR. W. H. BAKER held that if we can restore the healthy character of the strip of mucous membrane and retain it, that is the best surgery. In this class of cases he had removed a transverse wedge-shaped portion of each lip of the cervix and then brought the parts together. In this way the hyperplastic tissue preventing the apposition of the surfaces is removed. If proper preparatory treatment is employed, the saving of the strip of mucous membrane can usually be accomplished.

DR. R. STANSBURY SUTTON, in closing the discussion, said that in the case described there was one of two things to be done, either to remove the cervix or devise some new method of operating. This modification gave complete satisfaction in this case and he purposed trying it in other similar cases.

DR. ELWOOD WILSON, of Philadelphia, forwarded some

NOTES ON THE TREATMENT OF RECENT LACERATION OF THE CERVIX UTERI.

Occasionally a tear of the cervix can be recognized, he said, immediately after labor, but sometimes this can not be done. The patient should always be examined ten or twelve days later. If laceration be found immediately after labor, injections of corrosive sublimate solutions, one to five thousand, with the insertion of an iodoform suppository, should be resorted to. The vagina should be irrigated every other day and the suppository renewed. When the laceration is found within three weeks after delivery, the following treatment should be employed: After the surface has been carefully cleansed and dried, it should be painted with a solution of nitrate of silver, one drachm to the ounce of distilled water. From three to five applications at intervals of five days are usually required. In every case in which the author had tried this measure (six in number), the result was entirely satisfactory.

DR. FORDYCE BARKER, of New York, thought that the practice recommended in the paper is better worthy of trial. It is much preferable to the rôle laid down within the past few years, that if there is a laceration it should be closed immediately after labor. If this method will effect union it should be tried.

DR. THOMAS A. EMMET supposed that a certain amount of laceration occurs in every labor, but it is wonderful what nature will do to restore the cervix where septic poisoning is not present. It seemed to him that in all cases where under favorable circumstances nature has failed to repair the damage, there have been symptoms indicating septic inflammation. In the cases reported, he believed that the same results

would have been obtained even if nitrate of silver had not been employed.

DR. J. SCOTT, of San Francisco, said that in only one case had he attempted to sew up the cervix shortly after labor. In this case there was an extensive tear of the cervix and of the perineum. There was considerable bleeding, and five hours after labor he thought it advisable to sew up the cervix. The tissues were so soft that it was with the greatest difficulty that he could get the sutures to hold. Union took place, however, both in the cervix and in the peritoneum.

AFTERNOON SESSION.

DR. THOMAS ADDIS EMMET read a paper on

PELVIC INFLAMMATIONS: CELLULITIS VS. PERITONITIS.

In this country the term cellulitis has come to signify pelvic inflammation without reference to the special form, but its origin is supposed to have been in the connective tissue. So close is the relation between the connective tissue and the peritoneum, that it seems impossible for inflammation to be present in one without affecting the other. There are situations, however, as between the uterus and bladder, and between the uterus and rectum, where cellulitis might exist without involving the peritoneum. Inflammation in these situations tends to resolution, and so the tissues soon regain their healthy condition if suppuration does not take place. After septic poisoning, the peritoneum rapidly becomes inflamed and adhesions occur, the circulation in the bloodvessels becomes more or less obstructed, and the action of the absorbents is greatly impeded. Finally, a condition is produced which remains long after the symptoms have subsided, and one not prone to change or amenable to treatment. In such cases a fresh attack is provoked by slight causes.

It has been objected that when the abdominal cavity is opened for the removal of the ovaries, very slight evidences of inflammation are found. In a recent case the speaker had expressed the opinion from the vaginal examination, that a thickened and shortened left broad ligament would be found; at the operation no broad ligament was found, but there was an enlarged tube lying against the side of the vagina. Similar cases have been noted. He would explain these cases in this way: If there is an inflammation between the folds of the broad ligament, it must involve the peritoneum. As a result of the inflammation, the connective tissue disappears and adhesion of the opposing surfaces takes place. The broad ligament is flattened out so that Douglas's cul-de-sac disappears on that side. The vaginal wall is raised up so that it and the tube lie in contact. This is the condition found by the surgeon when he operates for the removal of the diseased Fallopian tubes. In all these cases he felt satisfied that there has been inflammation of the connective tissue. He thinks that the inflammation has been secondary to the cellulitis in every instance except where the primary inflammation was the result of gonorrhœa. If his observations are correct they would prove that the connective tissue never regains its integrity after having been once inflamed. If the surrounding tissue has restored the loss the part will return to its normal condition. If the loss cannot be replaced, nature can only repair the injury by a process of adhesive inflammation of the parts involved.

He had used the term thickening of the broad ligament, but he had not meant to imply that there is a deposit of lymph between the layers of the broad ligament. The enlargement is, he thinks, due to the dilated state of the veins. The condition is one easily aroused to activity.

It is still a moot question as to the way in which the tube has become involved where gonorrhœa is not the cause of the inflammation. In septic poisoning after surgical injuries, he believes that the connective tissue of the veins and lymphatics first become involved and that the inflammation of the peritoneum is secondary. There is no evidence to prove that the inflammation passes into the uterine canal and thence to the tubes, except in such cases where the process is due to gonorrhœa.

The prognosis as to the result to be gained by local treatment is doubtful in those cases due to gonorrhœa, in those cases where the pelvic inflammation is of long standing without reference to the cause, and in those with a history of frequently recurring attacks. In cases which can secure every attention, a cure by local treatment can sometimes be effected, but a long time is required. In patients who have to gain their own living, we may seriously consider the advisability of an operation after having gained the consent of the patient after a true representation of the operation and its results. We should enter a protest, and the profession should demand a recognition of the responsibility of those who are immediately operating for the removal of tubes and ovaries. It requires an expert to determine when the operation is necessary, and still more experience and skill to do it with safety to the patient. It should only be done as a last resort after other measures have failed. In a number of cases, in private practice, he had succeeded in restoring the patient to health by local treatment, although the operation had been strongly urged. If we could get accurate statistics, he thinks that it would be shown that the average amount of benefit gained does not compensate for the amount of risk. He believes that the operation is done too often even by those who have the least death-rate. He predicted that five years will not pass before it will be almost necessary to offer an apology when this operation is proposed.

DR. ROBERT BATTEY, of Georgia, said that from his experience it has seemed to him that the pelvic cellulitis which gives so much trouble was, in a large proportion of these cases, secondary. So far as disease affecting the tubes is concerned, he believes that if we throw out of consideration the gonorrhœal cases, the primary disease starts in the ovary. He regards most of these serious inflammations of the pelvic cellular tissue as dependent upon cystic or cirrhotic disease of the ovary. With reference to the frequency with which this operation is done, he said that he was largely in sympathy with the speaker. He thinks that the operation is done too often. He does not believe that every case of organic disease of the ovary requires operation.

In reply to a question of Dr. Fordyce Barker asking him to state the grounds on which he would advise removal of the tubes and ovaries, he said that every case must be determined for itself. If he had a poor, miserable patient, without the means of comfortable subsistence, suffering with ovarian or tubular disease, he would operate. If he could put such a patient under suitable

surroundings, and under a prolonged course of treatment, he might not think of the knife, but we have to look at the cases as they exist. He does not require in his cases an absolute diagnosis of disease of the tubes or ovaries prior to operation. It is sufficient for him to know that the general health is broken down by reason of the perverted function of her ovaries, that she is utterly miserable, that there is no reasonable hope of restoration to health by other means, and that there is a reasonable prospect of restoration by the removal of the ovaries. Under such circumstances he unhesitatingly operates, and, contrary to his former views, he finds that the ovaries are diseased.

DR. R. STANSBURY SUTTON, of Pittsburg, believed that when the ovary is diseased, and cannot be cured by ordinary means, when it is interfering with the health of the woman and her duties in life, it should be removed. If the ovary is diseased, and is a burden to the woman, it is as much the duty of the surgeon to remove that ovary as it is to remove a diseased eyeball. He agreed that the operation is being done too often, not, however, by competent men, but by incompetent men. The conditions which require the operation are not always clearly understood before the abdomen is opened. He did not believe that a man is compelled to be positively certain of what he is going to find before operating. The speaker then presented several specimens, and described the cases from which they were removed.

DR. BUSEY, of Washington, thought that if pathologists will return to the histological basis, there will not be the difference of opinion which now exists. He believed that it is now held that the cellular tissue is really a vast lymphatic structure, and that the peritoneum is a large lymphatic sac. Instead of discussing nice distinctions between pelvic cellulitis and pelvic peritonitis, it would be better to classify as pelvic lymphangitis these different varieties.

DR. J. SCOTT, of San Francisco, mentioned some of the cases bearing upon this point which he had seen. One was a patient supposed to have fibroid tumors. The abdomen was opened, and both ovaries found to contain pus. They were removed, and the patient recovered. In the second case the patient presented a tumor in the right side. The temperature record was kept for two months, during which time it did not vary half a degree. On opening the abdomen the ovary was found to contain ten ounces of pus. The right ovary was removed, but the left appeared to be healthy, and was left in position. During the operation the bladder was opened. This was sutured, and the patient made a good recovery. Five weeks later the patient complained of pain in the left side, and on examination he found an enlarged left ovary. This was removed, and the patient promptly recovered. In a somewhat similar case, one ovary was removed. In a short time the other, enlarged, but the operation was postponed, and the woman died of rupture of the abscess.

DR. MATTHEW D. MANN, of Buffalo, alluded to the possibility of one tube and ovary being diseased without involvement of the other. There is no reason why it should be so. He had, in several cases where the disease appeared to be limited to one side, removed but one ovary, and the result has been a perfect cure. This operation avoids some of the objections urged against the removal of both ovaries.

DR. H. P. C. WILSON, of Baltimore, believed that where there is a general cellulitis there is more or less pelvic peritonitis. These two affections are often associated. In the early stages the inflammation is often controlled by active treatment. If it is not controlled, it may go on to the formation of abscess. The pus may be discharged and the patient recover. Occasionally the abscess occurs in the tube or ovary, and these are the cases in which laparotomy is often called for. He agreed that the operation is done too frequently. The point which Dr. Mann had raised, that it is not always necessary to remove both ovaries, is a very important one.

DR. JOHN C. REEVE, of Dayton, Ohio, reported

A CASE OF ABDOMINAL SECTION FOR CHRONIC SUPPURATIVE PERITONITIS.

A., aged nineteen, living as if married, was healthy until November last. She had never been pregnant. She was attended by a physician, who found abdominal inflammation. On January 18th, she was seen in consultation by the speaker, at which time she presented the evidences of chronic peritonitis, but no history of a gonorrhoeal origin could be obtained. One month later she began to pass pus by the rectum. After other measures of relief had failed, laparotomy was offered in April, but declined. The patient was not again seen until June 20th, when she desired the operation. She had suffered with hectic, the menstruation had ceased since January, and examination of the urine showed no albumen. There was great tenderness and hardness all over the abdomen, pus being still passed with the stools. By vaginal examination no definite hardness could be detected. By the rectum there was ill-defined resonance high up on the left side. No opening into the rectum could be detected, although frequent examinations for this purpose were made. The patient was greatly emaciated, the weight having fallen from 125 to 70 pounds.

The operation was performed June 23d; there was great difficulty in the administration of the ether. On opening the peritoneum, all the parts were matted together. The abdomen was washed out by allowing water to run into it from a pipe, and then syringing out what remained. Finally a cavity was reached in the left lumbar region. It was impossible to attach the walls of this cavity to the abdominal wound, and as the condition of the patient was by this time alarming, a drainage tube was introduced and the abdominal incision closed with sutures. In the course of several hours, the patient gradually rallied from the operation. The temperature did not go above 100°. The cavity was washed out with a solution of iodine in tincture in water. The upper two-thirds of the abdominal wound failed to unite. On the fourteenth day a large quantity of fecal matter came through the wound. This has continued to recur. In July, evidences of Bright's disease were detected; since then there has been some improvement in the general health. He thought that if the patient had consented to the operation when first proposed, the result might have been different. One of the principal objects of the paper has been to ascertain whether, as has been stated, fecal fistula is an invariable consequence of laparotomy for abdominal inflammation in cases where pus has already escaped by the rectum.

DR. J. SCOTT mentioned the following case. A patient was admitted to the hospital with prolapse, inflammation of the ovaries, and cellulitis. After three months' treatment without improvement, removal of the ovaries was recommended, but declined by the patient. The patient was kept under treatment for six months longer, when enlargement of the right ovary began. Later, pus discharged by the rectum, and subsequently the abscess opened into the bladder. The patient then consented to operation. The abdomen was opened, an opening made into the vagina, and a drainage tube introduced. The improvement was not marked, and in the course of two months the patient was as bad as ever. The removal of both ovaries and tubes was then performed. Four or five days after the operation, feces appeared in the wound. During the five months succeeding the operation, the fecal fistula has closed, the patient has gained ten pounds, and is able to walk about.

DR. WILLIAM GOODELL, of Philadelphia, said that the only case which he had had at all similar to the one reported, was one of pelvic abscess opening into the rectum and bladder. He performed laparotomy with the intention of opening the abscess and stitching its walls to the abdominal wound. The abscess had been so constantly drained, that it was not larger than a pear. By compressing the abscess sac, he was able to make it prominent in the vagina, and force into it a closed pair of scissors, which were then opened, and the opening gradually enlarged and a drainage tube inserted. This case gradually recovered, both the rectal and vesical openings closing in the course of time.

DR. C. C. LEE, of New York, thought that the rule will come to be established that in chronic suppurative peritonitis, laparotomy is not only justified, but the procedure to be adopted.

DR. R. S. SUTTON said that in a case of pelvic abscess as large as a cocoanut, he performed laparotomy, and then stitched the peritoneum at the edge of the incision to the peritoneum covering the abscess, which was then opened and a drainage tube introduced. The patient recovered.

DR. JOSEPH T. JOHNSTON, of Washington, suggested that in such cases as the one described by the author, in which time is a matter of importance, much can be gained by adopting the procedure employed by Drs. Bantock and Tait. In washing out the abdominal cavity they pour the water into the cavity with a pitcher, using gallons at a time. In this way the cleansing is rapidly accomplished.

WEDNESDAY, SEPTEMBER 22D.—SECOND DAY.

MORNING SESSION.

DR. JOHN GOODMAN, of Louisville, Ky., read a paper on ERGOT AFTER LABOR.

The administration of a full dose of ergot immediately after the completion of labor has become a general practice. It is claimed that it promotes involution, prevents after-pains, and tends to prevent post-partum hemorrhage. Some years ago, the author administered a full dose of ergot after a perfectly normal labor. In fifteen minutes, severe pain appeared and increased. The tenderness in the uterus continued for a week.

There was no milk, and the patient, previously prolific, never again conceived. The trouble was attributed to inflammation of the muscular coat of the uterus, produced by the action of the ergot.

In a second case, treated in May, 1886, ergot was given after a forceps delivery. On the seventh day the patient had a chill, followed by a temperature of 104°. The next day a clot was washed out of the uterus, and the temperature fell to 99°. Well-marked septicæmia developed, and the patient died one week later. In this case the retention of the clot was attributed to the spasmodic contraction of the uterus preventing its escape. The author had seen other cases in which injurious effects were produced by the administration of ergot.

He claimed that ergot did not assist involution, which is a natural process, and requires a certain length of time for its completion. That we have in ergot a remedy capable of arresting after-pains, cannot be doubted, but it does so by exciting a mode of muscular action at variance with all physiological laws. After-pains are conservative, and it is better to wait until they become of abnormal severity before resorting to treatment. Ergot is capable of preventing hemorrhage, but its use is attended with such dangers that it should be employed only under exceptional circumstances. It should be an inviolable rule not to give ergot at the close of the third stage of labor, unless hemorrhage is imminent. It should then be used by hypodermatic injection.

DR. REAMY had in process of preparation a paper in which he enters his protest against the routine practice of the administration of ergot after the third stage of labor. This conclusion is based upon his experience, and upon a study of the action which is claimed for the drug. The contractions produced by ergot are unlike those of nature. The contraction of ergot is persistent, while the normal contraction is intermittent. If the contraction is persistent, the circulation of the uterine wall cannot reach a healthy state, and thus the process not only retains what is in the uterine cavity, but it interferes with the process of involution, and lays the foundation for sepsis and inflammation. He thinks that in the course of the next five or ten years, the practice of obstetricians in this matter will be revolutionized.

DR. WILLIAM GOODELL said that the author of the paper stated that it is only since last May that he has given up the use of ergot. He thinks that he has not had sufficient time to form such positive opinions. In the first case, he thinks that there must have been a fibroid tumor. The second case was a clear instance of septicæmia. He does not think that after-pains are conservative. As a rule, we do not see them in the primipara. These pains are, in great measure, the result of weaknesses induced by civilization. He does not believe that every woman who has given birth to a child needs ergot, but we do not know the cases which do require it. In twenty-five hundred cases of labor he has always given ergot after the completion of labor and he has never seen any harm from its use. He does not believe that one dose of ergot has much effect in favoring involution. Involution is the result of fatty degeneration, and the greater the contraction the greater the interference with circulation and the more rapidly should this change take place. He has used ergot for two purposes, one was to prevent hemorrhage and

the other to prevent the absorption of septic matter. Since the introduction of antiseptics, which he thinks should be used in every case of labor whether public or private, the use of ergot to prevent septic infection is not so important. He thinks that it does not do the harm which has been mentioned.

DR. GEORGE J. ENGLEMANN, of St. Louis, held in the main the views which the President had expressed. He used ergot much less than he did a few years ago. He believed that we have equally effective measures in the hot antiseptic douche and in the faradic current. After the contents of the uterus have been expelled ergot will in certain cases always be a useful and effective remedy. He would not venture to say that after labor ergot is out of place, but he thinks that he might say that before the contents of the uterus are expelled it should not be used at all.

DR. THEOPHILUS PARVIN, of Philadelphia, believed that the effect of ergot varies with the dose. A small dose acts simply to increase the normal uterine contractions. He objected to the assertion that ergot should never be given before the completion of labor. Statistics show that those who are most successful in the treatment of placenta prævia are the men who use ergot. Again, in a multipara with the os dilated, where a sudden rupture of the membranes has taken place, with a cessation of labor, fifteen or twenty grains of ergot cause a rapid completion of the labor. After a protracted labor there is a weariness of the uterus and a failure to enter upon the normal retraction which is a preventive of hemorrhage and tends to promote involution. As long as in the third stage of labor we assist nature in the expulsion of the placenta, why should we not assist nature in securing normal retraction of the uterus after the completion of the third stage? In some experiments which he made at the Philadelphia Hospital, to determine the rapidity of involution of the uterus in women who had received ergot and in those who had not, it was found that in those who received ergot after delivery, uterine involution seemed to take place more rapidly.

DR. SKENE, of Brooklyn, had never seen such effects from ergot as have been described in the paper. He did not think that in the cases reported the ergot had anything to do with the production of the effects. All rational men use ergot as any other remedy, when it is necessary or may possibly become necessary; if there is any doubt whether or not it is needed, it is better to give the patient the benefit of the doubt.

DR. P. C. WILLIAMS, of Baltimore, believed that ergot has its place in obstetrical medicine. He had never yet regretted its use in any case, but had regretted not using it. The great danger under the use of anæsthetics is hemorrhage. To avoid this the use of ergot seems to be the proper thing. He admitted that ergot is abused, but the abuse of ergot is no argument against its proper use.

DR. REAMY, in concluding, said that the profession is not taught that ergot should be given in diseased conditions, but that it shall be given in all cases after labor as a routine practice, and it is only against this use of it that he raised his voice.

DR. REAMY then delivered

THE PRESIDENT'S ADDRESS,

(See page 365.)

DR. FORDYCE BARKER, of New York, read a paper on THE INFLUENCE OF MENTAL IMPRESSIONS ON THE FETUS.

The belief that maternal impressions may affect the nutrition and development of the fetus *in utero* has existed from the earliest periods of which there are any records. Medical writers, with hardly an exception down to the beginning of the eighteenth century, express the belief, with more or less distinctness, that fetal marks and deformities are due to the emotions, desires, or shocks of the pregnant mother. Reference was then made to numerous papers written within the past twenty years, in which this theory was strongly controverted. Those who disbelieve in this doctrine, base their scepticism on what they regard as physiological reasoning, and chiefly on the assertion that there is no direct nerve connection between the maternal and fetal systems. Deformities, they urge, are due to arrest of development. But no one has brought forward sound physiological reasons why this arrest of development may not have been caused by mental impressions affecting the fetal nutrition by their influence on the maternal blood. Extremely rare as is the occurrence of cases which prove the result of this influence, he considered the fact to be so well proved by sufficient authentic evidence as to make it as certain as any other fact which cannot be explained by science. The term "mental impressions" should include those which have a physical as well as a psychical origin.

Five cases coming under the author's observation were described.

Case I. was that of a young lady who, at the age of eighteen, had for the first time been taken to the theatre, and had seen Sothern, the actor, in the part of *Lord Dundreary*. From this time she spent her whole time in writing to Lord Dundreary, and thought and talked of nothing else. This continued several months, but under treatment and change of scene, gradually wore away. She subsequently married, and four years after her attack of insanity, her first child—a boy—was born. As the child became able to talk, he exhibited peculiarities resembling those of Lord Dundreary. He walked with a little skip, had a slight stammer in his speech, and his left brow was drawn down with the lids practically closed.

Case II. was that of a lady, a typical brunette, who was first married to a gentleman, a typical blonde. She was never pregnant by him. Subsequent to his death she married a gentleman as marked a brunette as herself. Her first child was a decided blonde. Both her own and her husband's relatives are all brunettes. The lady has since had three children—all brunettes.

Case III. was that of a lady who, during the first month of pregnancy, had been much worried over her oldest daughter, who had had her ears bored for rings. The ears became inflamed and caused much trouble. When the child was born, both ears presented the appearance of having been pierced for rings, and through at least one of the lobes a thread could be passed.

Case IV. was that of a lady who, at a very early period of pregnancy was much impressed by seeing three ladies, all of whom had hare lips. When her child was born it had a double harelip.

Case V.—Mrs. X., married but a few weeks, was at

the theatre with her husband. Something vexing him, he placed the point of his elbow on her hand and held it so firmly that she could not draw it away. Not wishing to make a scene, she bore it until she fainted. The fingers were much swollen and painful for several days. She never lived with her husband afterward. Thirty-five weeks and three days after the theatre incident, she gave birth to a son. On the left hand, the first and second phalanges of all the fingers and thumb were absent, looking as if they had been amputated.

Other reported cases were then referred to.

DR. GOODELL, of Philadelphia, related one case which seemed to bear out the theory. A physician was called upon to assist at the operation of circumcision. His wife, who was in the early months of pregnancy, was much interested in the operation and insisted upon having all the details. The operation occupied much of her thoughts. When her child was born, a boy, it was found that the glans was exposed, the prepuce well retracted with granulating edges, showing an appearance very similar to that of recent circumcision. He had recently seen an almost identical condition in a child, which could not be accounted for by any impression on the mind of the mother.

DR. SAMUEL C. BUSEY, of Washington, believed that there is some relation between mental impressions and foetal deformities. Any prevalent and concurrent belief must be based upon an element of truth. This belief has prevailed since the time of Jacob. At the present time it is a fixed belief in the female mind. In the physical world there is no effect without a cause, and in the world of life the rule is the same. If we can demonstrate in any single instance a connection between the deformity and the mental impression, we must concede that such a thing can again occur. If there are any number of cases where we can show a precise correspondence between the impression and the deformity, the relation must be accepted as presumptively proven. Dr. Barker has cited some instances, and Dr. Goodell has given another case. In another case the mother, while pregnant, saw a man with an opening in his trachea from which a tracheotomy tube had been removed. The child, when born, exhibited a depression in the same position. Another case is reported where the mother received two distinct impressions, and the child was born with two distinct deformities corresponding to the separate impressions received. In another case the father had removed, in the presence of his mother, a metacarpal bone of one of the fingers. When the child was born it exhibited a corresponding deformity. A consideration of these cases can bring us to but one conclusion. The earlier in pregnancy the impression occurs the more frequently does the deformity follow and the greater is the correspondence between cause and effect.

The discussion was then postponed until the afternoon session.

AFTERNOON SESSION.

DR. JOHN S. BILLINGS, of Washington, said that there were many cases on record which cannot be explained by any knowledge which we now have. As to the influence of previous pregnancies on the characteristics of subsequent pregnancies, we have no scientific information. If we could obtain the statistics showing the char-

acters of children born of different fathers we should have some scientific data on which to form an opinion.

DR. BARKER remarked that in all the cases he had reported there was no evidence that the period since conception had been more than six weeks. He had rejected all cases in which conception occurred three or four months before the mental impression was produced.

DR. JOHN BYRNE, of Brooklyn, presented a paper on

THE TREATMENT OF PROCIDENTIA UTERI BY
GALVANOCAUTERY.

In regard to the relation of laceration of the perineum to prolapse of the uterus, the speaker held that laceration of the perineum, by interfering with the process of involution, may be a remote cause, but that laceration and prolapse can be associated in any other sense, cannot be admitted. Operations on the perineum can only influence the prolapse by offering an obstacle to vulvar protrusion. Only when a portion of, or the entire cervix is removed, can we look for permanent and satisfactory results after operation on the perineum.

In February, 1872, Mrs. H., the mother of four children, presented herself with the entire womb and vesicovaginal wall protruding. She was thirty-five years of age. The cervix was ulcerated from the friction. She was treated by applications of glycerole of tannin and irrigation, for two months. The ulceration was healed, but no impression was made on the prolapse, or on the size of the uterus, which measured four and one-half inches. The cervix was then removed with the galvano-cautery loop. The patient recovered without a symptom. Five weeks later there was no bulging of the vesicovaginal septum, and the uterus could just be reached with the finger. No reasonable amount of force, by means of a volsella forceps, could draw it down. The patient was discharged cured, and has continued well.

The whole number of cases treated with the galvano-cautery has been nine, but in only three has the cervix been removed. In six of the cases, linear cauterizations were required.

Case II. was a patient with procidentia, who had been treated with pessaries for a long time. The cervix appeared to be healthy. A double tenaculum was introduced into the cervical canal, and the whole mass pushed into the pelvic cavity, and lifted, to show the line of vaginal insertion. A groove sufficiently deep to admit the loop was then cut around the cervix, close to the vaginal vault. The hot loop was then adjusted, and the cervix cut through to the depth of one-fourth of an inch. The wire was then removed, and tampons of glycerole of tannin inserted. Two weeks after operation, the uterus resisted all reasonable efforts to depress it. Two years after operation no perceptible change was observed. The health had never been better, and menstruation was regular.

In *Case III.* the parts were returned, and the line of vaginal insertion marked in spots with the cautery knife. The entire mass was then drawn down, and a deep fissure, three-eighths of an inch in depth made around the circumference of the cervix. Then three incisions were made in the vagina, one central, and the others diverging, and the whole mass was then returned. The recovery was complete. In none of the cases has there been peritonitis of any severity.

The speaker highly recommended further trial of the galvano-cautery in these cases.

DR. GEORGE J. ENGLEMANN, of St. Louis, then spoke on

ELECTRICITY IN GYNECOLOGICAL PRACTICE.

After referring to the confusion which had surrounded this subject, he referred to the following points which should govern the use of electricity as a therapeutic agent: The formation of strict indications for the use of the galvanic and faradic currents; a differentiation between the varying forms and modifications of the galvanic and faradic currents; differentiation between the active and indifferent pole; the localization and concentration of the current; the precision of the dose; the use of stronger currents continued for a short time. He has used the galvanic or faradic current in the reduction of the size of neoplasms, fibrous polypi, cystic growths, and urethral caruncles; also, in chronic pelvic inflammation, and in chronic ovarian inflammation, in stenosis of the os, for the relief of the engorgement accompanying subinvolution, in prolapse when due to relaxation of the tissues. It is an aid in the correction of various forms of displacement; in metrorrhagia, when due to inflammation and relaxation; in certain forms of amenorrhœa, and for the relief of many annoying reflex symptoms. In obstetrics, it is useful in uterine inertia during or after labor; in cases of weak and irregular labor pains; in post-partum hemorrhage; in delayed involution; in paralysis of the urethra or bladder after labor, and in the interruption of extrauterine pregnancy.

The only contraindication to the use of electricity is the presence of severe acute inflammation. It may be used in subacute inflammation. In the more acute pelvic inflammations, care is required in its use.

A number of cases were then referred to, showing the beneficial effect of electricity in diminishing the size of fibroid tumors and in other conditions.

EVENING SESSION

was devoted to

THE BUSINESS MEETING.

The following were elected

OFFICERS FOR THE ENSUING YEAR:

President.—Dr. A. J. C. Skene, of Brooklyn.

Vice-Presidents.—Dr. John C. Reeve, of Dayton, O., and Dr. Elwood Wilson, of Philadelphia.

Secretary.—Dr. Joseph Tabor Johnston, of Washington.

Treasurer.—Dr. Matthew D. Mann, of Buffalo.

Additional Members of Council.—Drs. W. H. Baker, of Boston; C. C. Lee, of New York; T. M. Drysdale, of Philadelphia; and A. Reeves Jackson, of Chicago.

The following were elected

NEW MEMBERS:

Drs. Charles M. Green, of Boston; A. F. A. King, of Washington; E. C. Dudley, of Chicago; A. W. Johnstone, of Danville, Ky.; J. E. Janvrin, of New York; H. Marion Sims, of New York; B. F. Baer, of Philadelphia; and W. Gil Wylie, of New York.

PLACE OF NEXT MEETING.

It was decided to hold the next meeting in New York, beginning September 15, 1887.

A communication was presented with reference to the organization of

A CONGRESS OF AMERICAN PHYSICIANS AND SURGEONS.

DR. JOHN C. REEVE, of Dayton, Ohio, offered the following:

Resolved, That this Society expresses an opinion favorable to the formation of the proposed Congress, but that the committee be instructed not to favor any plan looking toward a surrender of its distinctive title and character, or to interfere with the full and entire management of its own affairs in every respect.

The following amendments were offered and accepted:

1. That this Society does not favor meetings of the Congress oftener than biennially.

2. That the committee opposes, as far as possible, meetings in the month of June.

The resolution as amended was adopted.

The committee consists of Drs. Samuel C. Busey, of Washington; Fordyce Barker, of New York; T. A. Emmet, of New York; J. R. Chadwick, of Boston; and Joseph Tabor Johnston, of Washington.

NEWS ITEMS.

MEETING OF THE COMMITTEES OF CONFERENCE OF THE VARIOUS SPECIAL ASSOCIATIONS REQUESTED TO PARTICIPATE IN A CONJOINT SESSION.—In response to the notice issued by the Secretary of the Committee of Conference of the American Surgical Association, the Committees of Conference met at the Army Medical Museum, Washington, D. C., at 12 o'clock noon, on Friday, September 24, 1886.

The meeting was organized by the election of Dr. S. C. Busey, of Washington, Chairman, and Dr. J. Ewing Mears, of Philadelphia, Secretary.

The Secretary reported that he had received notification of the appointment of committees by the following societies: American Ophthalmological Association, American Otological Association, American Gynecological Association, American Laryngological Association, American Dermatological Association, American Surgical Association, American Neurological Association, American Climatological Association, Association of American Physicians and Pathologists.

The following members of the Committees were present:

Ophthalmological Association: O. F. Wadsworth, M.D.; Samuel Theobald, M.D.; Wm. Thomson, M.D.

Otological Association: C. R. Agnew, M.D.; W. H. Carmalt, M.D.

Gynecological Association: S. C. Busey, M.D.; J. R. Chadwick, M.D.; J. Tabor Johnston, M.D.

Laryngological Association: J. F. Knight, M.D.; E. L. Shurley, M.D.

Dermatological Association: H. G. Piffard, M.D.; G. H. Tilden, M.D.

Surgical Association: C. H. Mastin, M.D.; J. Ford Thompson, M.D.; J. Ewing Mears, M.D.

Neurological Association: L. C. Gray, M.D.; J. Van Bibber, M.D.; J. Hendrie Lloyd.

Climatological Association: F. Donaldson, M.D.; W. W. Johnston, M.D.

Association of American Physicians: Wm. Pepper, M.D.

On motion, it was resolved that the Associations represented should vote by title, taken in chronological order, and as a unit.

Dr. Wm. Pepper offered the following resolutions, which, after careful consideration and discussion by those present, were adopted separately, and then as a whole:

1. That it is desirable that the American Surgical Association, the American Ophthalmological Association, the American Otological Association, the American Neurological Association, the American Laryngological Association, the American Gynecological Association, the American Dermatological Association, the American Climatological Association, and the Association of American Physicians and Pathologists, shall arrange for a conjoint meeting in the City of Washington, in the month of September, 1888, and subsequently at intervals of three years, at the same time and place.

2. That this arrangement shall not interfere in any way with the autonomy of each special Society; and that each Society shall retain the right to withdraw at any time from this conjoint scheme.

3. That the special feature of the meeting shall be the conjoint assemblage of the special Societies on two evenings during the session; on one of which there shall be an address delivered by the President of the conjoint meeting, and on the other there shall be communications by a referee and a co-referee on some subject of general professional interest.

4. That each special Society approving of this report is invited to appoint one representative (with an alternate), and that the representative so appointed shall constitute an executive committee to serve for one year, with power to elect such officers for the first conjoint meeting as may be deemed necessary; to prepare a programme for said meeting; to make all other necessary arrangements; and to prepare and submit a plan of organization for future meetings.

5. That all expenses connected with the conjoint sessions shall be apportioned equally by the executive committee among the special Societies participating.

Owing to the views entertained by the Committees of the Ophthalmological and Dermatological Associations, with regard to the intervals of time between the meetings, they abstained from voting upon the first resolution.

THE TENTH CENSUS.—The report of F. H. Wines, special agent of the tenth census, on the defective, dependent, and delinquent classes, is full of interesting details. The number of males confined in prisons and workhouses in the United States in 1880 was 53,604, and of females, 5005. The number of prisoners to each million of the population was 1069; in 1870 it was but 853. There were 1833 insane persons, 1533 idiots, and 976 blind persons to each million inhabitants. There were 21,595 out-door paupers, and 66,203 inmates of almshouses, during the census year.

THE PARIS ACADEMY OF MEDICINE is reported to have announced the following remarkable subject for a prize essay: "Préciser par une série d'observations s'il existe un traitement abortif de la syphilis confirmée." To abort a confirmed syphilis appears to be as encouraging a task as the proverbial locking of the stable door after the steed is stolen.—*Boston Medical and Surgical Journal.*

LEAD IN TINNED PROVISIONS.—Dr. Rabchevski, of St. Petersburg, has published the results of a series of investigations made on various kinds of tinned provisions, with the view of determining the suitability of food preserved in this way for the purposes of the army commissariat, especially when on active service. He first examined the tinned plates in the preserved provision manufactories, and found them in all cases quite free from lead. The case of the solder was, of course, different, the amount of lead contained in it varying from 60 to 70 per cent. The chemical examination of the contents of the tins was conducted by Pouchet's method, and showed that while some classes of food, such as roast meat, were quite free from lead, others, such as sour cabbage, which, to a Russian, is a very important article of diet, contained very appreciable quantities of lead, in one case as much as 0.327 per cent.; so that a man taking 200 grammes, or about a quarter of a pound, of this for his dinner would introduce into his system 0.654 grammes, or about eight grains, of lead—a quantity which, especially if taken frequently, can by no means be considered as harmless. The conclusion arrived at by the author is that these tinned provisions should only be used in the army in case of urgent need, and for a very short time. It would appear, too, that a choice might be made, only such classes of preserved food being accepted by the authorities as were shown to be least likely to become contaminated by the injurious substance contained in the solder.

THE BICYCLE AND PROSTATIC DISEASE.—The *California Practitioner* says that horsemen, after the age of forty, begin to exhibit evidences of disease of the prostate gland. This being true, it is evident that the rider of the bicycle is much more likely to acquire such disease. The genito-urinary specialist will rejoice in the prospective harvest afforded by the increasing use of the bicycle.

FAREWELL DINNER TO DR. R. T. EDES.—A farewell dinner was given to Dr. R. T. Edes, at Young's Hotel, Boston, Friday evening, September 17th, prior to his departure for Washington, where he intends to make his home and practise his profession.

About thirty of Dr. Edes's medical colleagues sat down at the table with him, the staff of the City Hospital, the Harvard Medical School, and the Dorchester Medical Club being especially represented. Dr. Francis Minot presided, and addressed the guest of the evening on behalf of the Harvard Medical School.

NEW YORK STATE BOARD OF HEALTH.—In the matter of food and drugs work has been vigorously pushed, and excellent monthly reports made, by the three chemists employed. The cream of tartar of the State has been thoroughly overhauled, and found to be, with few exceptions, adulterated. In two instances, at Brockport and Albany, a poisonous adulterant, oxalic acid, has been found. The entire stock in each case has been taken, its sale stopped, and efforts are being made to reach the manufacturers.—*Sanitary Era*.

NEW LENSES FOR MICROSCOPICAL WORK.—Professor Abbé, of Jena, has made an invention in microscopic

lenses, which, if correctly reported, will work a new era in microscopical work. After five years' experimenting (rendered possible by a subsidy of \$15,000 from the German government) Professor Abbé perfected a new combination, which, it is claimed, more perfectly corrects both spherical and chromatic aberration than any previous one. Some of the lenses composing the objective are of silicious glass, the remainder being compounds in which borax and phosphorus are leading constituents. These compounds were worked out by Dr. Scott in conjunction with Abbé, and the objectives have been made by Zeiss. Dr. Van Heurck describes them as follows in the *Journal de Micrographie*: The objective is homogeneous immersion, of a focal distance of three millimetres, or about one-eighth English measurement. It is not arranged for cover-glass correction, as this is not necessary, that function being obtained by means of the sliding tube of the body. It contains five lenses, and has a numerical aperture of 1.4, which is a trifle less than has been obtained in England and America (1.5); but so far as its optical qualities are concerned it is far superior to anything ever before made, the new glass permitting the absolute correction of all aberrations. The field is perfectly flat, the minutest object in the extreme edge of the field showing as sharply and clearly as though it were in the centre. With the vertical illuminator an amphipleura (silvered) is resolved into pearls—not merely in spots, but over the entire frustule, and with such clearness that these pearls can be counted. In the study of other diatoms I have found details which have hitherto escaped notice. As to the bacteria, details of structure are shown that have never before been seen—details that will without doubt serve to differentiate them by ocular means. Accompanying the objective are three eye-pieces, two for direct use, and one for photography. They are also made of the new glass and by entirely new optical formulae.

LIFE INSURANCE.—A recent interesting case in the English Court of Appeal brings up some new points. It appeared that a person applied to a company for insurance, and answered in his application a large number of questions as to his habits, health, etc. In addition to this, as is the usual custom, he was examined by a physician, and upon his report the risk was accepted by the company, but only on the terms that there should be no insurance until the premium was paid. The gentleman was prepared to pay the premium whenever the papers were ready, but before they were ready a change had come in his health, making the risk a poor one, and the company refused to issue the policy. The premium was tendered, but refused by the company, and a suit was brought to compel the issuing of the policy. The court declined to take this action, and held that there was no binding contract until the premium was paid. If it had been tendered at the time of the acceptance of the application, instead of waiting for the preparation of the policy, the company would have been obliged to issue the policy.

A DISTRICT NURSE SOCIETY has been formed in Philadelphia for the care of the sick poor in the Third District (Fifth, Seventh, and Eighth Wards) who cannot be sent to the hospital. A trained nurse is provided by

the Society to visit those who are ill and give them such care as is needed. The office is at No. 1030 Race Street.

The Society will also furnish bed linen and other comforts for the sick. For these services a charge of five cents a day is made, except in case of extreme poverty. The members of the medical profession are requested to send notice to the Society of those who require a nurse's aid, and with this notice there should be directions for the nurse in case any special treatment is required.

TESTING HOUSE-DRAINS.—At a conference in connection with the Building Exhibition held in London under the auspices of the Society of Architects, Mr. R. K. Burton described methods used by himself in testing the soundness and arrangement of house-drains. Three questions, he said, were to be decided: (1) Is the drain water- and gas-tight? (2) Is it self-cleansing? (3) Is it disconnected from the sewer? The first point is best decided by a test; but it is well to observe the appearance of the joints before taking the trouble to apply any test, as such may at once reveal the fact that the drain is leaking. In more cases than those who have not made many inspections would imagine, it will be found that there is absolutely nothing in the joints of a tile-drain. In others it will be found that there is clay only, and he had never known a clay-jointed drain to be water-tight. In still other cases it may appear, from looking at the tops of joints, that they are carefully made with cement; but when a rod of iron or a chisel is plunged into the earth underneath them, it comes up wet and black with sewage. It is only when none of the appearances described are to be seen that it is worth while applying a test. The best undoubtedly is the water-test. In this the drain is opened by the removal of a pipe, and is plugged.

It will be found impossible to fill more than perhaps about one out of three drains, except in houses which have been very recently remodelled, and that it is necessary to avoid pouring too much water into a leaky drain. If the drain does fill up the running water is stopped, and it is observed whether the water in the gullies or surface-traps remains at a constant level. The test next in efficiency to that by water is the smoke-test. The next question is as to whether the drains are self-cleansing or not. As in the case of the water test, an opening must be made; but it is not needful to remove a whole pipe. It is sufficient to chip a round hole in the top of one. If no deposit appears just under the opening, water is allowed to run into the drain at the upper end, and the flow is observed at the opening. If the water runs briskly and clear past the opening all is right. If, however, it comes tardily, and carrying deposit with it, it is a question of ascertaining the cause. A drain, if well laid, should, with a fall of one in sixty, clear itself. A house-drain should seldom or never be larger than six inches; four inches is large enough for very small houses, and if five inches were the size generally made, it would probably be better than either four inches or six inches for the majority of houses. Now as to whether the drain is disconnected from the sewer or not. To make absolutely sure whether or not there is a concealed trap on the drain, if the opening does not reveal this, the only plan is to pass rods down the drain. One may, however, have evidence approaching to certainty

by burning a match in the drain, and observing whether or not there is any current of air through it. If there is, it may be assumed that there is no trap on the drain. It is necessary to test each branch for self-cleansing properties. The material for soil-pipes should be ascertained by removing the wooden casings which generally cover them. If an internal soil-pipe is made up of light cast-iron pipes (rain-water pipes), and lead junction-pieces for the closets, it may be condemned without any further investigation. The best test for a whole-drainage system is undoubtedly the smoke-test. This test consists essentially in filling the drainage system with smoke at some pressure, and observing whether or not it issues at any place other than the openings intended for ventilation.

Smoke-rockets are now largely used by those who have to make inspection of sanitary arrangements. These consist of paper cases filled with a composition which gives off a vast quantity of smoke at a considerable pressure. The smoke-test can never be taken—when it gives negative results—as an absolute test for drains. The peppermint-test is inferior to the smoke-test when the latter is properly applied, in the speaker's opinion. The next thing of most importance to do is to trace the overflow-pipes of the cistern to see whether these are connected with the drain or not. A connection of any kind between a cistern and the drain is a thing to be condemned. The baths, sinks, basins, etc., come next under examination. The discharge-pipe—and overflow, if there be one—of each of these must be traced to discover whether or not it is connected with the drain. The closets must be very carefully examined, although they are not nearly so often the points of ingress of sewer-gas to the house as in any other appliances, such as sinks. They are often, however—especially when of the old pan form—themselves generators of foul gases, and as such objectionable.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM SEPTEMBER 21 TO SEPTEMBER 27, 1886.

FISHER, W. W. A., First Lieutenant and Assistant Surgeon.—Granted leave of absence for one month, to take effect September 10, with permission to apply for one month's extension.—*F. O. 88, Department of Arizona*, September 1, 1886.

GANDY, CHARLES M., First Lieutenant and Assistant Surgeon.—Assigned to duty at Fort Concho, Texas.—*S. O. 131, Department of Texas*, September 18, 1886.

BACHE, DALLAS, Major and Surgeon.—Granted leave of absence for twenty-five days, to take effect on or about October 2, 1886.—*S. O. 143, Division of the Atlantic*, September 24, 1886.

APPEL, DANIEL M., Captain and Assistant Surgeon.—Assigned to duty at Fort Davis, Texas.—*S. O. 133, Department of Texas*, September 22, 1886.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE-HOSPITAL SERVICE, FOR THE WEEK ENDING SEPTEMBER 25, 1886.

BAILLACHE, P. H., Surgeon.—Granted leave of absence for thirty days, September 25, 1886.

VANSANT, JOHN, Surgeon.—Granted leave of absence for thirty days, September 24, 1886.

BRATTON, W. D., Assistant Surgeon.—Relieved from duty on Revenue Steamer "Corwin," and ordered to duty at Marine Hospital, San Francisco, California, September 20, 1886.